Natural Heritage Institute

#212

2140 SHATTUCK AVENUE, 5TH FLOOR
BERKELEY, CA 94704
TEL: (510) 644-2900/FAX: (510) 644-4428
e-mail: nhi@n-h-i.org

Non-Profit Law and Consulting in Conservation of Natural Resources and the Global Environment

Steve Ritchie, Director
CALFED Bay-Delta Program Office
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Re: landowner letter for this proposal

Dear Steve,

I am writing this letter to inform you that the most recent letter of cooperation fiom the owner of the Griffith Parcel, Michael Griffith, was mistakenly sent directly to your office by the landowner. Your staff advised me to send a hard copy of the letter to CALFED as soon as possible. Mr. Griffith will be mailing me a hard copy tonight and I will send it to CALFED as soon as it arrives at our office. I have enclosed a letter of cooperation fiom Michael Griffith that he wrote on April 21,2000 for a different proposal. I apologize for any inconvenience that this may cause. Thank you very much for your understanding.

Sincerely,

John Cain
Restoration Ecologist

Attachment H

Proposal # 2001-H-212 (Office use only)

PSP Cover Sheet (Attach to the front of each proposal) Watershed Stewardship in Marsh Creek

Proposal Title: A project to protect water quality in the Western Delta

Applicant Name: The Natural Heritage Institute

Contact Name: John Cain

Mailing Address: 2140 Shattuck Ave., 5th Floor, Berkeley, CA. 94704

Telephone: (510) 644-2900 ex. 108

Fax: (510) 644-4428

Email: jcain@n-h-i.org

Amount of funding requested: $ 640,122

Some entities charge different costs dependent on the source of the finds. If it is different for state or federal funds list below.

State cost _____ Federal cost _____

Cost share partners? X **Yes** ___ **No**

Identify partners and amount contributed by each Coastal Conservancy(NHI/DSC)-$117,000, San Francisco Bay Fund(DSC)-$20,000, CC Flood Contol District-$350,000, Coastal Conservancy (Brentwood)-$63,000, Switzer Foundation-$25,000

Indicate the Topic for which you are applying (check only one box).

- ☐ Natural Flow Regimes
- ☐ Nonnative Invasive Species
- ☐ Channel Dynamics/Sediment Transport
- ☐ Flood Management
- ☐ Shallow Water Tidal/ Marsh Habitat
- ☐ Contaminants
- ☐ Beyond the Riparian Corridor
- ☒ Local Watershed Stewardship
- ☐ Environmental Education
- ☐ Special Status Species Surveys and Studies
- ☐ Fishery Monitoring, Assessment and Research
- ☐ Fish Screens

What county or counties is the project located in? Contra Costa

What CALFED ecozone is the project located in? *See* attachedlist and indicate number. Be as specific as possible 1.4 (Central and Western Delta)

Indicate the type of applicant (check only one box):

- ☐ State agency
- ☐ Public/Non-profit joint venture
- ☐ Local government/district
- ☐ University
- ☐ Other: _____
- ☐ Federalagency
- ☒ Non-profit
- ☐ Tribes
- ☐ Private party

Indicate the primary species which *the* proposal addresses (check all that apply):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☐ Spring-run chinook **salmon**
- ☐ Late-fall run chinook salmon
- ☐ Fall-run chinook salmon
- ☒ Delta smelt
- ☐ Longfin smelt
- ☒ Splittail
- ☐ Steelhead trout
- ☐ Green sturgeon
- ☐ Striped bass
- ☐ White Sturgeon
- ☒ All chinook species
- ☐ Waterfowl and Shorebirds
- ☐ All anadromous salmonids
- ☐ Migratory buds
- ☐ ***American*** shad
- ☐ Other listed T/E species: _____

Indicate the type of project (check only one box):

- ☐ Research/Monitoring
- ☒ Watershed Planning
- ☐ Pilot/Demo Project
- ☐ Education
- ☐ Full-scale Implementation

Is this a next-phase of an ongoing project? Yes ___ No x

Have you received funding from CALFED before? Yes x No ___

If yes, list project title and CALFED number "A Learning Laboratory for Restoring Subsided Lands in the Delta" w/partner), "Inundation *of* the Yolo Bypass to Restore Sacramento Splittail and a Suite o other Anadramous Native Species in Dry Years" (99-B-189), and *

Have you received funding from CVPIA before? Yes ___ No X

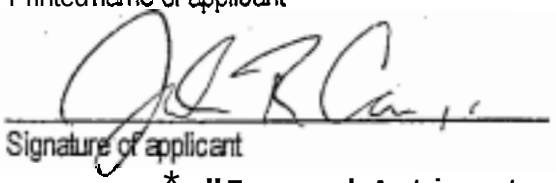
If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):

By signing **below, the applicant declares the following:**

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- .The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section **24)** and waives any and dl rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

John Cain (Natural Heritage Institute)

Printed name of applicant



Signature of applicant

* "Focused Action to Develop Ecologically-based Hydrologic Models and Water Management Strategies in the San Joaquin Basin" (99-B-166)

Title: Marsh Creek Watershed Stewardship Program: A project to protect water quality in the Western Delta

Support Requested: $640,122 (Cost Share $742,000)

Applicant: The Natural Heritage Institute
John Cain
2140 Shattack Avenue, 5th Floor
Berkeley, CA. 94710
tel: (510) 644-2900 ext. 108, fax: (510) 644-4426
email: jcain@n-h-i.org

Participants and Collaborators: City of Brentwood, City of Oakley, Delta Science Center, East Bay Regional Park District, Contra Costa County Flood Control District, and Dr. Darell Slotton-UC Davis.

Summary: Marsh Creek and its watershed present both a potential problem and an enormous opportunity to protect water quality in the Western Delta while maintaining ecological connectivity from Mt. Diablo to the Delta. Between its headwaters on Mt. Diablo and its mouth at Big Break, Marsh Creek flows though the rapidly urbanizing communities of Brentwood, and Oakley – some of the fastest growing municipalities in North America. Last year alone, 23,100 people moved to the city of Brentwood, increasing its population by an astounding 14.1 percent (CA Dept. of Finance, 2000). If unmitigated, urbanization and other human impacts will not only degrade Marsh Creek but will also pollute important tidal marsh and native fish habitat at Big Break in the Western Delta. The objectives of this proposal are to:

- Protect and improve water quality in Marsh Creek and Big Break.
- Protect and restore habitats for target species in Marsh Creek.
- Preserve habitat connectivity between the Big Break shoreline and Mt. Diablo.

Achieving these objectives will require:

- Better information on historic and existing conditions.
- Land acquisition to protect a corridor along Marsh Creek and its tributaries.
- Floodplain restoration and storm water mitigation projects to filter pollutants and increase habitats in and along Marsh Creek.
- Widespread community support for restoration in the watershed.

With funding from the Coastal Conservancy, we have initiated a citizen based Watershed Science Program and begun the design of a floodplain restoration project at the mouth of Marsh Creek that will restore 25-50 acres of marsh plain and riparian forest (figure 5). This proposal to CALFED solicits funds to continue the watershed science program for baseline data and public education, develop a remediation strategy for mercury mine tailings in the upper watershed, acquire a key parcel at the confluence of Marsh Creek and two of its major tributaries, and design a flood plain restoration project on the newly acquired parcel. These two projects are connected by the East Bay Regional Park District's Marsh Creek trail, and their successful implementation will galvanize community support for a watershed stewardship program to protect Delta water quality. Over the long-term, we intend to rehabilitate other sites along Marsh Creek and where possible, create long reaches with a two staged channel to simultaneously improve water quality, habitat, and flood conveyance. If successful, these cumulative efforts would protect and restore the last riparian corridor between the Diablo Range and the Delta.

C. Project Description

1. Statement **of** Problem-

A. Problem Marsh Creek and its watershed present both a potential problem and an enormous opportunity to protect water quality in the Western Delta while maintaining ecological connectivity fiom Mt Diablo to the Delta (figure 1). Between its headwaters on Mt. Diablo and its mouth at Big Break, Marsh Creek flows though the rapidly urbanizing communities of Brentwood, and Oakley – some of the fastest growing municipalities in North America **Last** year alone, 23,100 people moved to the city of Brentwood, increasing its population by an astounding 14.1 percent (CADept. of Finance, 2000). If unmitigated, urbanization and other human impacts will not only degrade Marsh Creek but will also pollute important tidal marsh and native fish habitat in Big Break and the Western Delta.

Marsh Creek is the last intact stream directly connecting the Diablo Range to the Delta[1] and its watershed encompasses relatively pristine areas that provide habitat for endangered red-legged frogs, western pond turtles, and native resident fish. Unlike most other streams in Contra Costa County, there is still time to protect Marsh Creek. With CALFED's support, all major municipalities in the watershed have agreed to work collaboratively with the Delta Science Center and the Natural Heritage Institute for its protection and restoration, but the window for meaningful restoration is closing **as** rapidly as the watershed is urbanizing. The objectivesof this proposal are to:

- Protect and improve water quality in Marsh Creek and Big Break.
- Protect and restore habitats for target species in Marsh Creek.
- Preserve habitat connectivity between the Big Break shoreline and Mt. Diablo.

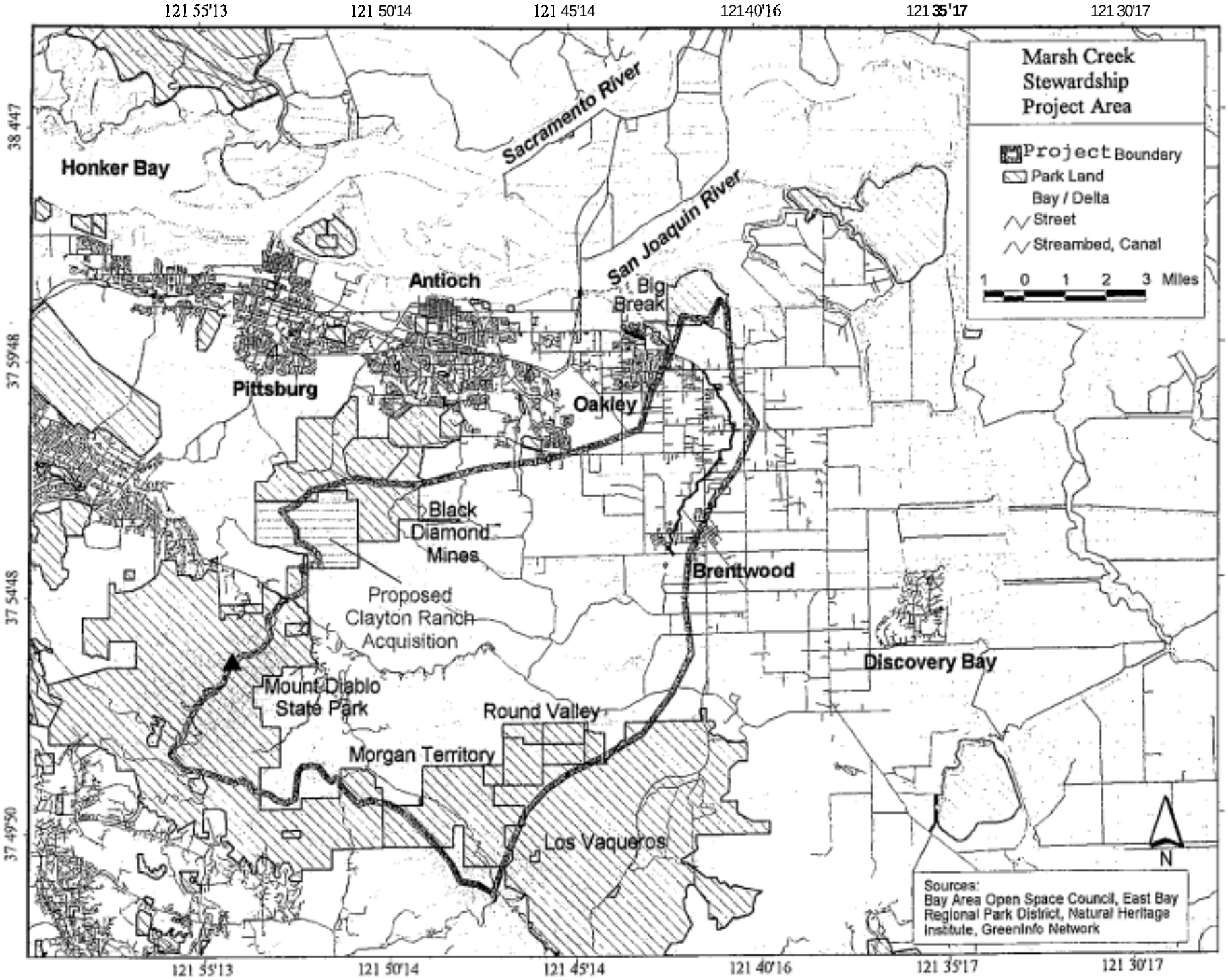
Achieving these objectives will require:

- Better information on historic and existing conditions
- Land acquisition to protect a corridor along Marsh Creek and its tributaries.
- Channel restoration and storm water mitigation projects to filter pollutants and increase habitats in Marsh Creek.
- Widespread community support for restoration in the watershed.

B. Conceptual Model- Increases in polluted runoff from the Marsh Creek Watershed could inflict large and potentially irreversible ecological harm to Big Break, the second largest tidal marsh in the legal Delta and the documented habitat of endangered native fishes. Due to its relatively closed configuration, tidal circulation is probably limited (John Burau, pers com. 2000) creating the very real possibility that toxins and pollutants from Marsh Creek will concentrate to harmful levels within Big Break. Although Big Break **has** not been well studied to date, the few studies and surveys that sampled areas w i t h Big Break or along its perimeter, including lower Marsh Creek, suggest that it provides important habitat for splittail, salmon, and Delta smelt. A comprehensive survey of splittail determined that Big Break **is** one of only three locations where adult **splittail** congregate in large numbers (Meng and Moyle, 1995; R. Baxter DFG, 2000). Juvenile salmon were recently collected in lower Marsh Creek during two consecutive years indicating that salmon either spawn in Marsh Creek or that juvenile salmon migrate from the Delta to rear in lower Marsh Creek (Slotton, 1998). Unpublished surveys by Hanson (pers, com., 2000) and DFG surveys (R. Baxter, 2000) indicate that late juvenile Delta smelt **use** Big Break and confirm the presence of adult splittail and juvenile salmon. Hanson attributes Big Break's species diversity, over **35** fish taxa

[1] The other *streams that* drain Mt. Diablo have *been* totally disconnected or dewatered by water development projects and subdivisions. Kellog Creek was recently dammed by Los Vaqueros Reservoir and its mouth has been irreperably destroyed by Discovery Bay subdivision. The confluence of Brushy Creek and the Delta has been destroyed by Clifton Court Forebay.

Figure 1


121 55'13
121 50'14
121 45'14
121 40'16
121 35'17
121 30'17
38 4'47
37 59'48
37 54'48
37 49'50
Marsh Creek Stewardship Project Area
Project Boundary
Park Land
Bay / Delta
Street
Streambed, Canal
1 0 1 2 3 Miles
Sacramento River
San Joaquin River
Honker Bay
Antioch
Big Break
Pittsburg
Oakley
Black Diamond Mines
Brentwood
Proposed Clayton Ranch Acquisition
Discovery Bay
Mount Diablo State Park
Round Valley
Morgan Territory
Los Vaqueros
N
Sources:
Bay Area Open Space Council, East Bay Regional Park District, Natural Heritage Institute, GreenInfo Network

identified during 1997 surveys between Big Break and Antioch, to its unique habitat complexity (pers com.2000).

Numerous studies suggest that polluted run-off from Marsh Creek and high concentrations of pollutants in Big Break would be harmful to endangered fish and lead to the long-term degradation of aquatic habitat in both Big Break and Marsh Creek (Pillard, 1996; Maguad et al., 1997; Hinton, 1998; Wenning et al, 1999; Fisher et al., 2000). Slotton (1998, pers com 2000) found a disturbingly low number of macroinvertebrate taxa in lower Marsh Creek prompting him to describe it as "dead." These water quality problems are further complicated by abandoned mercury mine tailings in the upper watershed. Although extensive baseline monitoring surveys (Slotton, 1998) indicate that mercury contamination has not traveled below the Marsh Creek reservoir, the tailings site is a problem waiting to happen. No agencies have been willing to take responsibility for fear of assuming liability (D. Slotton, pers com 2000)

Increases in the area of impervious surfaces and the density of the storm drain network will increase flood peaks and decrease base flows (figure 2) (Dunne and Leopold, 1978). Research indicates that these hydrologic alterations will facilitate the transport of pollutants such as methyl mercury, pesticides,. metals, dioxins, and n-nitroso compounds during high run-off periods and reduce dilution of pollutants during low flow periods (US EPA, 1992; and Skinner et al 1999). All of these chemicals have been linked to developmental toxicity in aquatic biota (Marsh, 1993; Schiff and Stevenson, 1996). Under natural conditions, wetland vegetation along Marsh Creek would have filtered pollutants from the watershed, but today legitimate flood control management practices intentionally denude riparian vegetation to accelerate conveyance of floodwaters and thus facilitate the transport of pollutants to Big Break (figure 2). Marsh Creek is already too small to sufficiently convey floodwaters, and thus further urbanization will only exacerbate flooding and storm water pollution problems and increase conflicts between flood control and habitat restoration unless remedial action is taken

Despite the obvious importance of Marsh Creek and Big Break, neither CALFED nor any other state or federal agency has initiated a proactive strategy to study, protect or restore water quality and habitat in the watershed. Fortunately, innovative leaders at the Contra Costa County Flood Control District and the Cities of Brentwood and Oakley are eager to join with the DSC and NHI to protect this important aquatic resource. In the face of rapid urban development and insufficient knowledge about how the Marsh Creek system functions, we believe that protection and restoration of the Marsh Creek corridor and Big Break requires a four-pronged strategy using the following management interventions:

1. Develop a citizen based Watershed Science Program to improve knowledge of the Marsh Creek resource and prioritize consensus-based recommendations for restoration.
2. Develop a preliminary plan and cost schedule to coordinate an interagency effort to remediate erosion of mercury tainted mine tailings from an abandoned mine in the upper watershed.
3. Initiate a land acquisition program from willing landowners to acquire key parcels along Marsh Creek and its tributaries, starting with the acquisition of the Griffith parcel. This will create a corridor along toe creek that protects the confluence of these streams, improves water quality, accommodates flood conveyance, fosters public access, and facilitates habitat restoration.
4. Fund planning and implementation of channel restoration projects at the confluence of Deer, Sand, and Marsh Creeks, and at the mouth of Marsh Creek (a linked proposal) to serve as demonstration projects that will galvanize community support for creek restoration.

Watershed Science ***Program***- The Watershed Science Program (WSP) is based on a model developed by Luna Leopold and Josh Collins and is predicated on the principle that you must "listen to the river" before implementing restoration measures. Far too often, efforts to restore creeks are not based on a scientifically sound understanding of the system, resulting in misguided

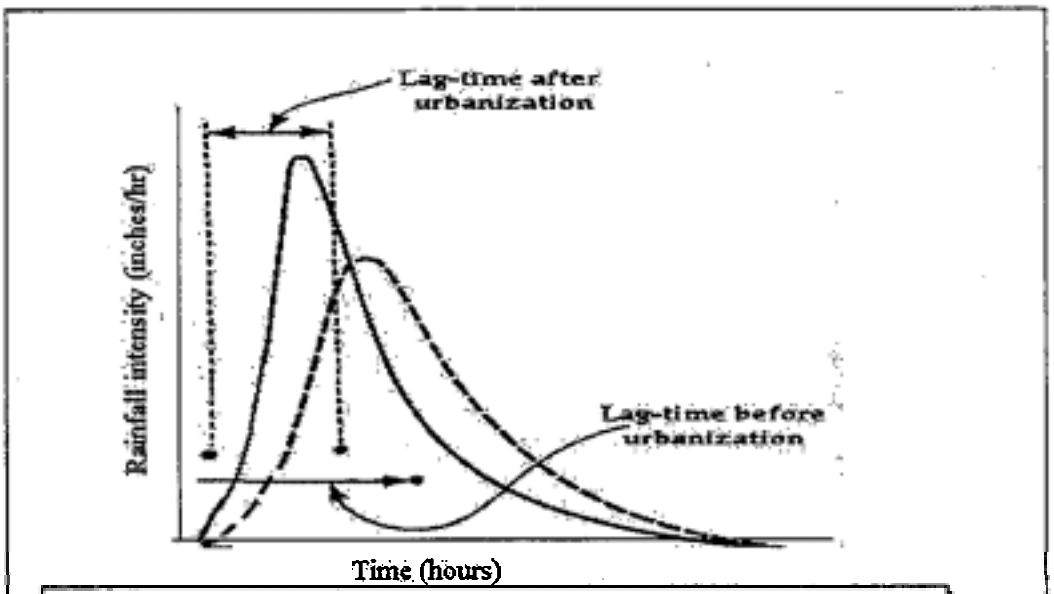


Figure 2- The effect of urbanization on runoff dynamic. The peak is exaggerated and the lag-time is decreased (from Leopold 1968).

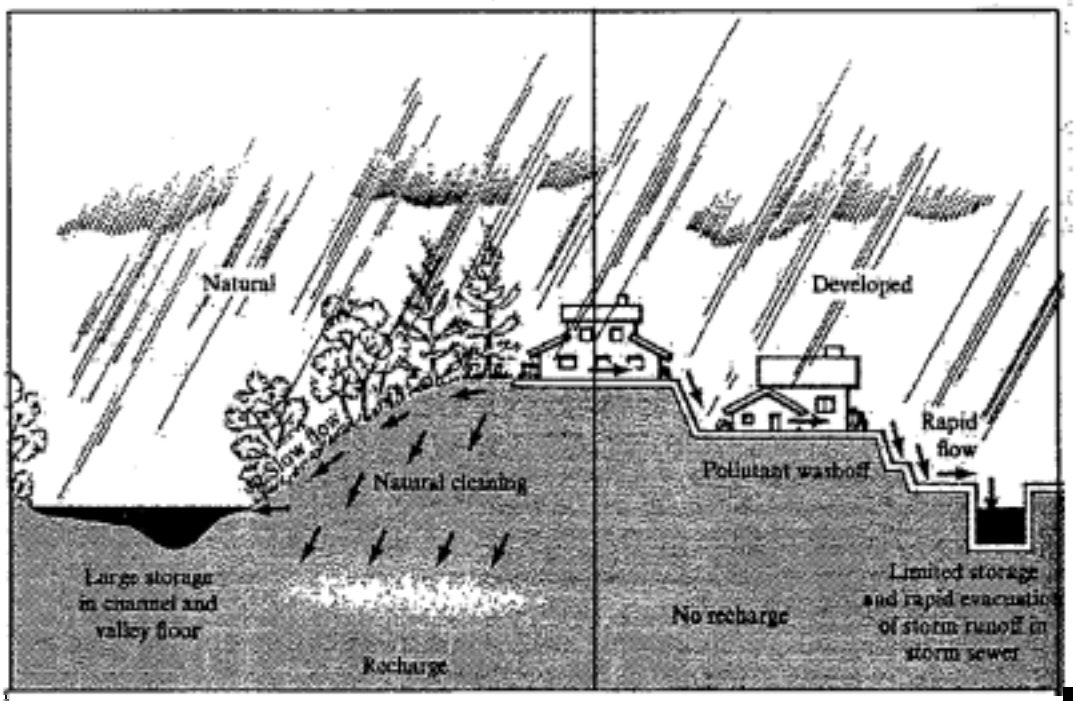


Figure 3- This illustration depicts the basic assumptions regarding the relationship between urbanization and hydrology inherent in the conceptual model for this proposal (from Dunne and Leopold 1978).

efforts that are at best a misallocation of public resources. The WSP emphasizes historical geomorphic analysis and thorough base line data collection, a prerequisite of successful watershed restoration (Kondolf and Larson, 1995). This proposal lays out a plan of action to engage local students and enthusiastic citizens in the collection, mapping and analysis of data from Marsh Creek. An interdisciplinary team of scientists and educators will work with these local citizens to develop consistent data collection protocol and provide the expertise to properly analyze the data. In circumstances where consistent data collection cannot be achieved by citizens, technical experts will collect and analyze data and share results with participating citizens. Darrel Slotton will be retained to add to his biomonitoring data (1998), a remarkably strong baseline data set on biological conditions.

Mercury Tailing Remediation Program- The mercury from the tailings has yet not contaminated Big Break, but will be the inevitable result of present lack of monitoring and mitigation. To date, no agency has stepped forward to address the problem for fear of assuming liability even though remediation may be a relatively simple matter (Slotton, pers. Com). The objective of this task is to design and initiate implementation of a low cost remediation strategy consistent with restoration actions suggested in section 3.5 of the PSP. NHI and DSC will retain experienced engineers, hydrologists, and soil chemists to develop a preliminary remediation plan and will organize a multi-agency, citizen based effort to implement it. NHI lawyers will develop an indemnification strategy, and Professor Darell Soltton of the UC Davis Mercury Group will develop an adaptive monitoring strategy that allows managers to immediately identify and respond to increased mercury loading if the remedial actions do not perform as expected.

Land Acquisition Program- Although the watershed science program described above is based on the premise that study should precede action, it is clear that land acquisition along the stream comdor is essential now to maintain future opportunities for restoration. The independent scientific review panel that reviewed the ERP in 1997 agreed with this assessment when they advised that "purchase of land and water rights is key to protecting and controlling Bay-Delta resources (Interim Science Panel, 1997)." This proposal seeks funds for our first acquisition at the confluence of Marsh Creek and two of its largest tributaries. The proposed acquisition (figure 4) is located in the center of Brentwood along the Marsh Creek channel, but is imminently threatened by development. Confluences are ecologically important features, and the combination of scour holes, complex bars, and backwater floodplains provide key habitat for aquatic species. The 5 acre Griffith parcel will be graded to allow extensive flooding and to restore a geomorphically appropriate confluence zone and filtration wetland. The acquisition of a high cost ($65,000 per acre) 5 acre parcel will not be sufficient to protect and restore Marsh Creek, but its acquisition is ecologically and politically important. This confluence site not only provides an important opportunity for restoring ecosystem structure and function, but its central location provides an unprecedented opportunity for educating citizens and galvanizing community support for watershed wide stewardship.

Channel Restoration and Storm Water Filtration Wetlands- The fourth element of our program is a channel restoration and storm water management program to create storm water detention wetlands and restore floodplains that will filter pollutants, provide habitat, and reduce flood stage, velocity, and erosion. By rerouting urban and agricultural storm water into restored wetlands we can foster bio-filtration of non-point source pollutants (Mitsch and Gosselink 1993; Scholes et al. 1998; Scholes et al. 1999).

With funding from the Coastal Conservancy, we have already begun design of a floodplain restoration project at the mouth of Marsh Creek that will restore 25-50 acres of marsh plain and riparian forest (figure 4). This proposal to CALFED solicits funds to acquire land and design a flood plain restoration project at the confluence of Marsh Creek and two of its major tributaries.

Over the long-term, we intend to rehabilitate other sites along Marsh Creek and where possible, create long reaches with a two staged channel to simultaneously improve water quality, habitat, and flood conveyance. Where major agricultural and urban drains discharge into the Creek, we will work with landowners and local municipalities to construct multipurpose detention basins to clean drain water and provide habitat. Research indicates that toxicity levels in reconstructed wetlands are not likely to be problematic if the wetlands are designed to specifically address local contamination issues (Rochfort et al. 1997; Zayed et al. 1998; Keller et al. 1998; McArthur 1989). Nevertheless, all newly reconstructed floodplains will be monitored regularly to ensure that we are not creating toxic habitat. If successful, these cumulative efforts would restore a healthy aquatic resource and an essential biotic comdor between the Diablo Range and the Delta.

C Hypothesis Being Tested

- ***The restoration of floodplains along Marsh Creek will filter pollutants and improve downstream water qualify.*** Hypothesis test will require biomonitoring and bioassays of macroinvertebrates, California roach ***(Hesperoleucussymmetricus),*** hitch ***(Lavinia exilicauda),*** and other resident aquatic species upstream and downstream of restoration sites (Slotton, 1998) before and after restoration. If the hypothesis is correct, the remediation would address the following strategic objectives under ERP goal #6, sediment and Water **Quality** (Toxic Substances) strategic: objective I-"Reduce all concentrations and loadings in all aquatic environments in the CALFED region," and Objective 2-"Develop regional plans to reduce the effects of non-point source contaminants," Objective 3- "Reduce contaminant loads in at-risk species." Testing this hypothesis will address uncertainties listed in the PSP under Flood Management as an Ecosystem Tool.
- ***Remediation of the mercury mine tailings will reduce mercury loading in Marsh Creek.*** Hypothesis test will require reinitiating biomonitoring and bioassays of macroinvertebrates and Caliiornia roach ***(Hesperoleucussymmetricus)*** upstream and downstream of the mine site (Slotton, 1998) before and after remediation. If the hypothesis is correct, the remediation would address the following strategic objectives under ERP goal #6, sediment and water quality (toxic substances): objective 1-"Reduce all concentrations and loadings in all aquatic environments in the CALFED region," and Objective 2-"Develop regional plans to reduce the effects of non-point source contaminants," Objective 3- "Reduce contaminant loads in at-risk species."
- ***The restoration of floodplains along Marsh Creek will increase potential habitat for sensitive species such as avian fauna, western pond turtle, and native resident fish. Restoration of floodplain and marsh plain at the mouth of Marsh Creek will create spawning habitat for splittail and rearing habitat for salmon.*** Hypothesis test will require baseline and long-term post restoration monitoring for presence or absence of special status species and an inventory of potential habitat. If successful, restoration would achieve the following ERP goals: #1 At-Risk Species, #2 Ecosystem Processes & Biotic Communities, #4 Habitats. Monitoring of marsh and floodplain restoration at the mouth of Marsh Creek would help evaluate the value of tidal marsh for salmon. Testing this hypothesis will addresses uncertainties listed in the PSP under Flood Management as an Ecosystem Tool.
- ***The Watershed Science Program will increase community participation in restoration, monitoring, and stewardship of the Marsh Creek Watershed*** The number of people attending watershed stewardship meetings, writing letters in support of watershed restoration, and participating in data collection and restoration efforts would provide data to support this hypothesis.

D. Adaptive Management- The first element of this proposal, the Watershed Science Program addresses the first 3 steps in figure 2 of the PSP and will establish a watershed monitoring program to test the effectiveness of restoration actions. The WSP is specifically designed to: (1) Clarify the

"problem" through improved understanding of the environmental past, present, and changes; (2) Based upon the understanding of change, develop quantitative resource objectives for the future; (3) Build conceptual models to highlight assumptions, competing hypotheses, and alternative actions; (4) Implement restoration actions and regularly monitor and evaluate progress toward the objectives. When necessary, adjust management techniques to achieve desired goals Although we do not yet know enough to implement an effective large-scale restoration effort, we have defined some major problems and cannot afford to simply conduct more research. If not mitigated, risks associated with mercury mine tailings and urbanization threaten irreversible damage to Big Break and preclude future opportunities for restoration. This proposal takes the first steps to address these problems: acquisition of the Griffith parcel at the confluence of Marsh Creek and two of its tributaries, design of floodplain restoration projects at the Griffith parcel and the mouth of Marsh Creek, and development of a scientific and legal remediation strategy for the Mercury Mine Tailings. Two years of baseline data collected with WSP will be collected before implementation and when combined with existing biomonitoring baseline data (Slotton, 1998) will create an excellent pre-project data set to evaluate the effectiveness of restoration actions.

E. Educational Objective- This project is predicated on the idea of getting citizens involved in watershed stewardship. Our audience, community members from the rapidly urbanizing towns of east Contra Costa County, is an ethnically and socio-economically diverse group. We will organize field data collection and mapping events for students, teachers and interested citizens, and will hold town meetings to present high quality graphic presentations that will educate people about the Marsh Creek and Delta resource.

2. Proposed Scope of Work - ***A.: Geographic and Boundaries-*** The entire project site is in Contra Costa County. The Marsh Creek Watershed falls into the CALFED Central and Western Delta **(1.4)** and the West San Joaquin Basin Ecozones. Our project footprint is on a **USGS** 1:100,000 map (Appendix A) Project centeroid is Parcel at 613300(x), 4199500(y) (UTM, Zone 10, NAD 27, from the Brentwood USGS **7.5** Quad).

B. Approach - This proposal is a four-pronged approach to improving and protecting water quality and habitat viability in Marsh Creek and Big Break. The first component is the 'Watershed Science Program (WSP) in the Marsh Creek Watershed, which falls under the ERP rubric "Local Watershed Stewardship and Environmental Education."

TASK I-The Watershed Science Program: The objectives of the task are to organize a community based watershed analysis that improves scientific understanding of ecological trends and processes shaping Marsh Creek and builds a knowledgeable local constituency for restoration - requisite first steps toward the implementation of an effective restoration strategy.

- ***Public Outreach and Agency Coordination:*** Representatives from the Natural Heritage Institute (NHI), Delta Science Center (DSC), the Cities of Oakley and Brentwood, and the East Bay Regional Park District (EBRPD) will conduct an intensive public outreach program. NHI and DSC will focus on meetings with private landowners and local governments, while EBRPD will emphasize public outreach to the thousands of new residents on interpretive tours in the watershed. This task is already partially funded and under way with a grant from the Coastal Conservancy. Graphically rich presentations of data from subsequent tasks will be presented at public meetings to educate citizens and develop a consensus based restoration strategy.
- ***Description and Mapping of Resource:*** The applicants compile existing information, create a digital aerial photo base map, and initiate a data collection and analysis effort to establish a general environmental baseline and characterize historical and present trends in hydrologic, geomorphic, and ecological conditions. NHI, DSC, and CCFCD scientists, planners, and

graduate students will analyze historical and present aerial photos, maps, and survey data to build a time series of map layers describing changes in: channel planform, cross section, land-use, vegetation, storm drain area network, gullies and landslides; and describe extent of past floods; extent of past wildfires, geology, and soil types. DSC and NHI will coordinate field mapping and data collection to describe channel and riparian habitat types; analyze reference and representative vegetation conditions; survey representative cross sections, thalweg, and banks, and establish permanent bench marks; and develop detailed geomorphic maps of representative reaches. Professor Christine Hagelin and Dr. Darrell Slotton will coordinate a biological and water quality analysis.

- ***Coordinate a Community Based Watershed Monitoring Program:*** In this task DSC and EBRPD will coordinate a public data collection efforts under the guidance of NHI. A "core group" of teachers, students, and volunteers will be trained to collect and organize data from the field. The NHI science advisory team will establish data collection and reporting protocol compatible with CMARP standards'.
- ***Detailed Field Survey and Analysis:*** With the assistance of trained volunteers, teachers, and students, NHI scientists and Darel Slotton of U.C. Davis will conduct a detailed survey of physical and biological conditions. Baseline monitoring and analysis will focus on describing hydrology, channel morphology, fluvial sediment transport functions, historical and present extent of riparian wetland vegetation, historical changes in geomorphology, potential for species of special status, and existing biological communities. Dr. Darell Slotton of the U.C. Davis Mercury group will be retained to collect bioassay fish and macro invertebrate samples from stations he established and monitored between 1995-97 to characterize trends in species presence and mercury concentrations. Dr. Slotton will collect macroinvertebrate and fish at eight to ten sites along the creek including above the mine site, below the mine site, a upper-watershed reference site, above the Marsh Creek Reservoir, upstream of Brentwood, downstream of Brentwood, Oakley, and on one or more principal tributary. Macroinvertebrate samples will be collected according to DFG rapid bioassesment protocol for California. The hydrologic and geomorphic analysis will include describing, measuring, and mapping the following: flow duration and flood frequency; perennial pools and perennial stream reaches; springs, confluences, points of diversion, and point sources of flow input; major sediment sources associated with terraces, banks, or the channel bed; major sediment source reaches, transport reaches, and storage reaches; sediment sue using Wolman pebble count; absence/presence and concentration of known urban toxins in surface water and sediments; the relationships between bank geometry and channel order and drainage area; conditions of bank and terrace engineering relative to existing bankfull height; and typical rates of channel bed aggradation or degradation. Additional data collection and analysis will be wried out to ascertain mobility of toxins and circulation/dilution of inflow from Marsh Creek at Big Break. We will establish monumented cross-sections and describe longitudinal profiles of thalweg, bar tops, and terrace heights relative to existing bankfull stage for selected reference reaches. All permanent cross-sections will extend from hillslope to hillslope to encompass existing and historic floodplain features, including, but not limited to: remnant channels, existing or abandoned roads and railroad grades, irrigation ditches, changes in vegetation type and other hydro-geomorphically relevant features.

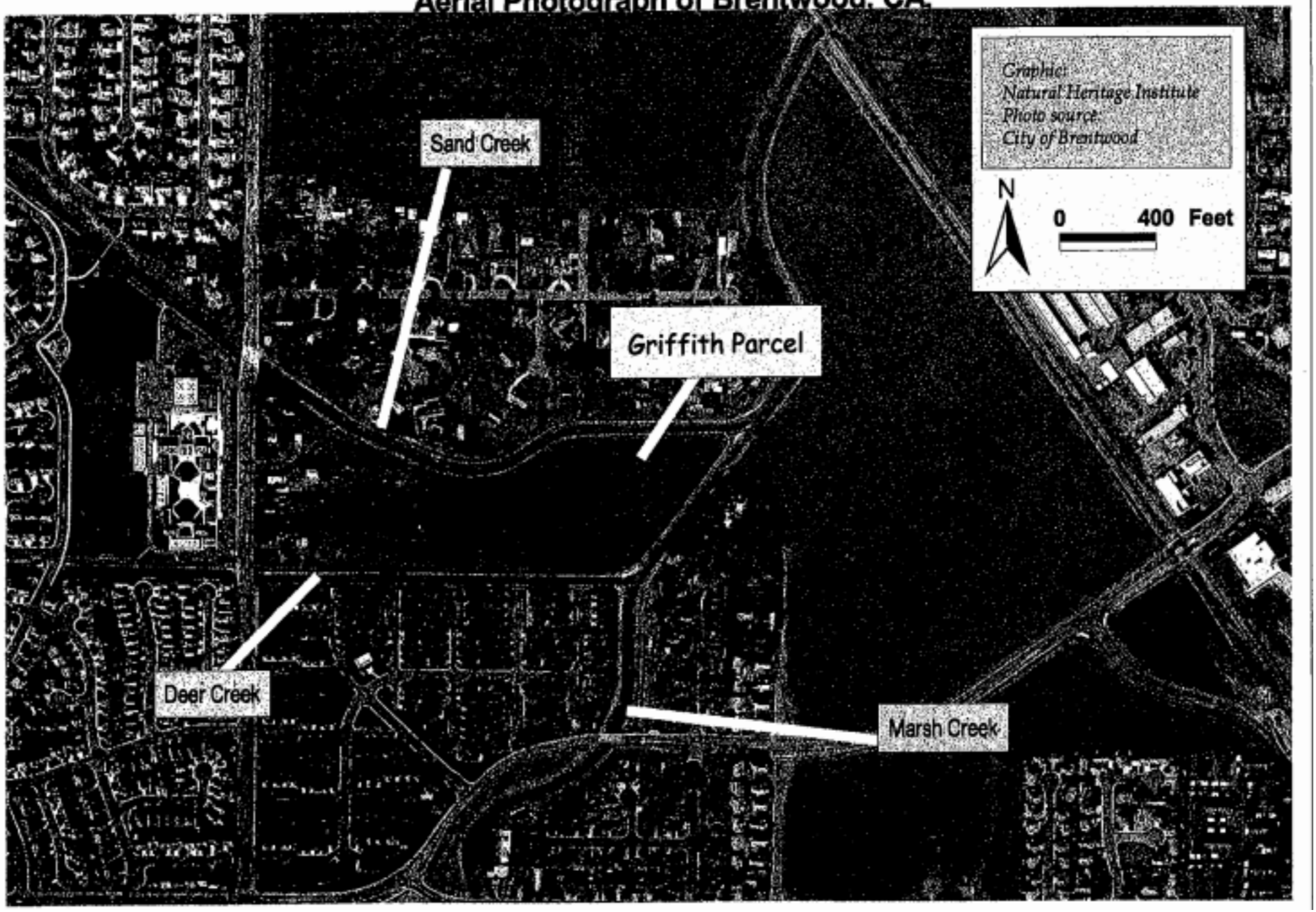
TASK 2- Remediation of Mercury Tailings

- ***Collect baseline data and develop long-term monitoring program:*** We will retain Dr. Darell Slotten of U.C. Davis to complete two additional years of mercury sampling and help create a

[2] In circumstances where citizen data collection is either too difficult or consistent protocols are unattainable, expert technicians will be brought in to insure that all data is of the highest quality.

Figure 4

Aerial Photograph of Brentwood, CA



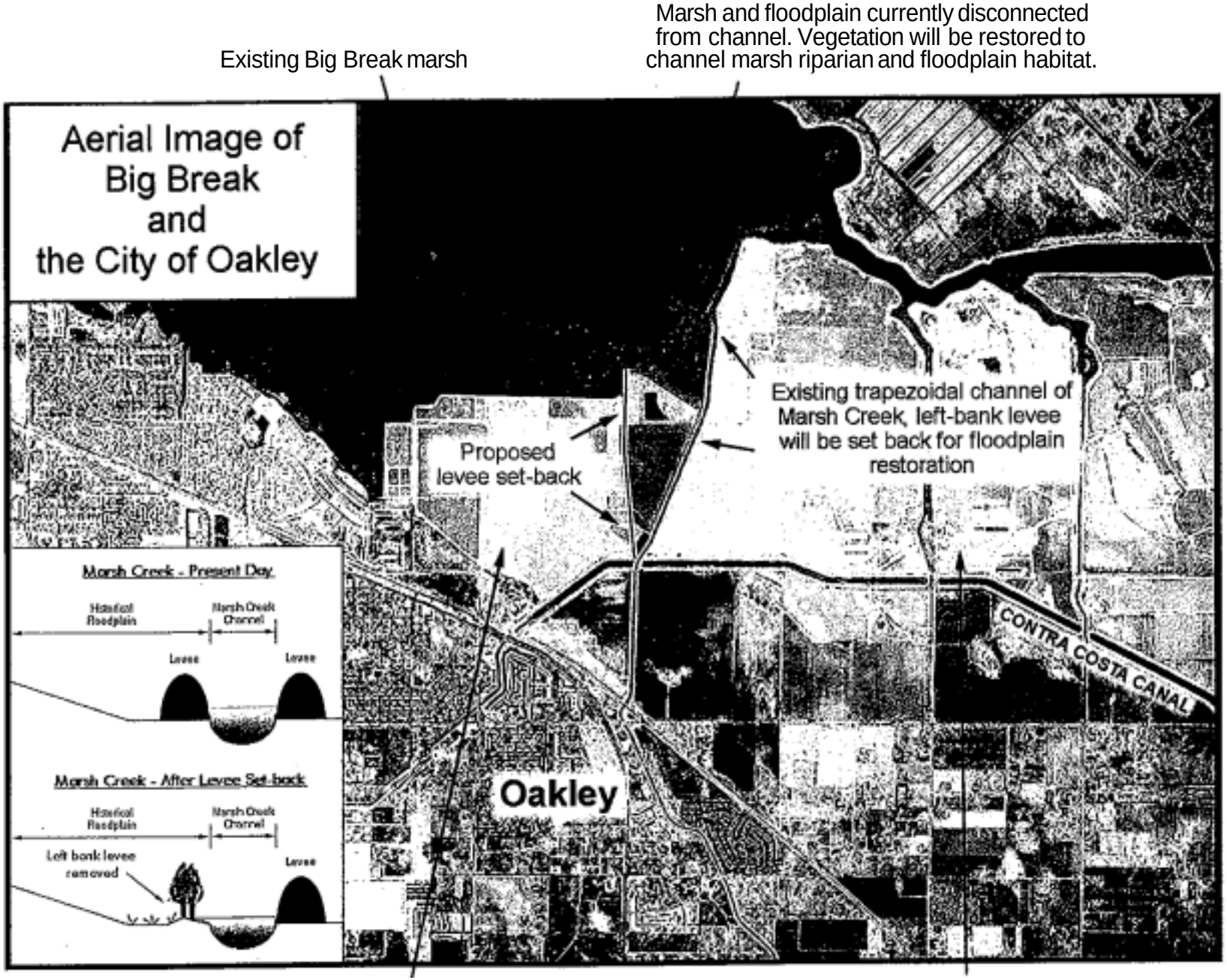

Existing Big Break marsh
Marsh and floodplain currently disconnected from channel. Vegetation will be restored to channel marsh riparian and floodplain habitat.
Aerial Image of Big Break and the City of Oakley
Proposed levee set-back
Existing trapezoidal channel of Marsh Creek, left-bank levee will be set back for floodplain restoration
CONTRA COSTA CANAL
Oakley
Marsh Creek - Present Day
Historical Floodplain
Marsh Creek Channel
Levee
Levee
Marsh Creek - After Levee Set-back
Historical Floodplain
Marsh Creek Channel
Left bank levee removed
Levee
Opportunity for improved management of seasonal wetlands on Ironhouse Sanitation District lands
Opportunity for tidal marsh restoration or new subdivisions

Figure 5

long-term monitoring protocol for mercury. Dr. Slotton's work will build on three years of baseline sediment, biomonitoring, and biassay data collected from 1995-1997. Solid samples of sediment, fish, and invertebrates will be processed by first digesting in concentrated sulfuric acid and nitric acids ad potassium permanganate and subsequently analyzed for total mercury using a well established modified cold vapor atomic absorption (CVAA) micro-technique described in Slotton (1995).

- *Develop conceptual engineering plan for remediation*. NHI scientists and consultants will work with Dr. Slotton, local landowners and agencies to develop a physical remediation design to protect Marsh Creek and Big Break from future mercury contamination. Remediation design will entail diverting run-off around tailing site and restoring native vegetation to reduce the erosive potential of direct precipitation.
- *Coordinate inter-agency effort and obtain funds to implement remediation strategy*. NHI lawyers and scientists will work with agencies and landowners to resolve liability problems and obtain funding to remediate site.

TASK 3-Land Acquisition Program: This task will require a $350,000 contribution from CALFED to acquire the Griffith parcel at the confluence of Marsh Creek and its two largest tributaries - Deer Creek and Sand Creek. Acquisition of this parcel is critical now to prevent urbanization of this unique confluence area.

TASK 4- Channel-Floodplain Restoration: The project applicants are planning flood plain restoration projects at the mouth of marsh creek and at the creek's confluence with it two largest tributaries in the City of Brentwood. Although these two projects will create different habitat, they both are intended improve water quality, increase habitat for target species and reduce flood problems. The channel restoration design at the mouth of Marsh Creek, already funded by the Coastal Conservancy, will set back a levee and excavate flood plain to create a unique combination tidal marsh and riparian vegetation (25-50 acres) suitable for use by native migratory fish such as splittail and juvenile salmon (figure 5). This proposal solicits design funds for restoration of floodplains at a key parcel at the confluence of Marsh Creek, Deer Creek and Sand Creek (figure 4) All three creeks at the confluence are currently coniined in narrow channel without flood plains. The conceptual design for the parcel entails 'major grading and excavation to create a large floodplain and riparian area 4-5 acres where the 3 creeks converge.

Baseline data documenting hydrology, geomorphology, habitat types, wetlands, and fish and wildlife will be conducted during the watershed science program and the design phase for each project. The design phase will include hydrologic and sediment modeling analysis to evaluate how various designs will effect the flow of sediment and water. We will conduct flood frequency analysis with data from the Marsh creek gauge and utilize various other methods (McBain) to estimate the appropriate frequency and magnitude bankfull discharge and design the channel to inundate the floodplain accordingly.

C. Monitoring and Assessment- This proposal seek CALFED funds to develop a detailed monitoring program as part of the watershed science programs and design phase of the individual channel restoration projects. Our approach is to first work with the community and knowledgeable scientists to develop a realistic restoration objectives that are consistent with CALFED and informed by an historical conditions analysis.' Once objectives are developed, NHI will assemble its team of advising and consulting scientists to refine our conceptual model and develop hypothesis about how proposed management interventions will achieve stated objectives. Lastly, we will 'design our floodplain restoration projects as experiments to test hypothesis with a well planned monitoring program.

D. Datu handling and Storage- All data collected through the Watershed Science Program will be mapped on a digital aerial photo base map (where applicable) in an arc-view format and organized into a geographic data base on CD Rom. All samples collected by Darell Slotton will be stored at UC Davis according to standard methods. Macroinvertebrate samples collected with a rapid bioassessment method will be stored according to DFG protocol.

E. Expected Products/Outcomes- The Marsh Creek watershed science program will include local citizens and students in a data collection effort and document the results in a series of graphically rich reports that will be presented at public meetings to inform local community members and develop consensus based recommendations for the watershed stewardship program. Quarterly public meetings will be held at community centers in Oakley and Brentwood. The final product of the watershed science program will be a consensus based strategic plan for protection and restoration of the Marsh Creek watershed and a technical appendix including a GIS data base data, collection efforts, results, and community input. The land acquisition portion of this project will result in a fee title to the Griffith Parcel by the City of Brentwood. The channel restoration element of the proposal will result in permitted design drawings and full implementation of a channel restoration project on the Griffith parcel at the confluences of Sand, Deer, and Marsh creeks.

F. Work Schedule-Eight Quarters

Task	*Start*	*End*	*Milestones*
Watershed Science Program	5/01	5/03	Graphically rich description of resource, baseline data set, consensus based restoration strategy.
Mercury Remediation	5/01	5/03	Remediation design, agreement on remediation strategy, procurement of implementation funding.
Land Acquisition	5/01	5/03	Fee title acquisition.
Floodplain Restoration Design	5/01	5/03	Preliminary Design, Permitted final Design, Monitoring Plan.

G. Feasibility- The scientific elements of the watershed science program were developed by Luna Leopold and emphasize the importance of historic geomorphic analysis, a prerequisite of stream restoration (Kondolf and Larson, 1994; CALFED Strategic Plan, 1999). A purely scientific approach to watershed restoration is vulnerable to criticism by community groups who view it as a technocratic approach that uses science as an excuse for barring local citizens from the decision making process. The community participation of the watershed science program ensures, however, that citizens are active participants in the watershed planning process. Acquisition of the Griffith parcel is a low risk conservation measure that is fully supported by the landowner (letter attached), the City of Brentwood, and the Contra Costa Flood Control District. Utilization of wetland retention basins and a two-staged channel design are well tested techniques for reducing flood damage, improving instream habitat, restoring flood plain habitat, decreasing bank and bed erosion, and filtering and buffering toxins and pollutants (McArthur 1989; Mitsch and Gosselink, 1993). The Contra Costa Flood Control District is encouraging these techniques in the County, particularly in new developments adjacent to the Delta.

D. Applicability of CALFED ERP Goals and Implementation Plan and CPVIA Priorities (no more than 2 pages).

Although this proposal will be technically considered a watershed stewardship and land acquisition proposal, the inherent long-term goals directly relate to many of the fundamental ERP Goals.

Goal#1: At-risk species

Priority Group 1- Objective 9: Restore Sacramento Splittail to the Delta, Suisun Bay, and the Central Valley (Strategic-Plan for the ERP- 1998). Research indicates that adult spittail congregate in large numbers at Big Break (Meng and Moyle, 1995). Improving water quality at Big break can help to insure the survival of these populations. Additionally, the lack of flooded vegetation in the Bay-Delta system is another major factor limiting populations of Sacramento splittail (Strategic Plan for the ERP- 1998). Restoration of floodplain habitat in the lower reaches of Marsh Creek (linked proposal) can benefit splittail. During years when Marsh Creek floods but the mainstem rivers do not flood, the Marsh Creek floodplain could serve as an important source of splittail recruitment.

Priority Group 1- Objectives 2,3, and 4: Various runs of Chinook Salmon (Strategic Plan for the ERP- 1998). Research confirms that salmon fry and smolt have recently been found in the Big Break area (Hanson, pers com., 2000). Furthermore, it may be possible to restore intermittent or annual runs of salmon and steelhead to Marsh Creek as numerous historical sources describe salmonid runs in the creek. Unverified local anecdotes report historical salmon spawning in Marsh Creek as far upstream as Brentwood during wet years. Other reports describe migrating salmon blocked below drop structures. Habitat in Marsh Creek or its tributaries may be suitable for spawning as well. Well-shaded portions of Marsh Creek just above Brentwood support perennial flows in most years. Although the main stem of the creek is dammed at the Marsh Creek Reservoir site, the headwaters of Sand Creek in Black Diamond Regional Park are intermittently accessible and flowing for several months each year.

Priority Group III, objective 1 and 5 (Strategic Plan for ERP- 1998): Both the Red-legged Frog and Western Pond Turtle have established populations along Marsh Creek.

Goal #2: Ecosystem Processes and Biotic Communities- Objective 6 in the Strategic Plan for the ERP (1998) is the, "...reestablishment of frequent inundation of floodplains by removing, breaching, or setting back levees..." This is exactly what we intend to do on the Griffith Parcel and the lower Marsh Creek Channel (linked proposal).

Goal #4: Habitats- Objective 5 in the Strategic Plan for the ERP (1998, table 4-1) is to, "...halt as much as is possible the conversion of agricultural land to urban and suburban uses in areas adjacent to restored aquatic, riparian, and wetland habitats and manage these lands in ways that are favorable to birds and other wildlife." Our Land Acquisition Program directly addresses that objective. Additionally, the 2001 PSP places high value on the, "aesthetic values of natural landscape containing mosaics of habitats (pg 19)." Although our fundamental goals are ecosystem oriented, it is hard to imagine that a patchwork of wetlands and a gently meandering Marsh Creek would not add significant aesthetic value to EBRP's Marsh Creek Trail and the watershed as a whole.

Goal #6: Sediment and Water Quality- In the 2001 PSP, the general focus is to, "...improve and maintain water and sediment quality, to eliminate, to the extent possible, toxic impacts on organisms in the system, including humans. (pg 20)" This is the fundamental ERP goal of our proposal. We will to use the WSP and the Land Acquisition Program to recreate floodplains to bio-filter non-point source urban toxins before they reach Big Break.

Relationship to other Ecosystem Restoration Projects-

Together, the East Bay Regional Park District, The Delta Science Center, and the Natural Heritage Institute have raised over $6 million to acquire Big Break; develop a Delta research and public education facility; prepare restoration plans for Big Break and Marsh Creek; and involve citizens, at all levels, to design a sustainable future for Big Break and Marsh Creek. Our levee set-back project on lower Marsh creek to restore 25-50 acres of unique riparian and tidal marsh habitat (figure 5) is now linked to the upstream project at the Griffith parcel in Brentwood by the 6 mile EBRPD that will eventually connect both projects with hundreds of miles of linked ridge and shoreline trails. Oakley, Brentwood, and the Contra Costa Flood Control District (CCWD) are now united on implementing these projects, includmg significant construction funding guaranteed by the DDFD for the Griffith restoration.

This proposal is also linked to the California Department of Water Resources effort to fund the "Study of Ecosystem and Salinity Benefits of Flooded Delta Island Restoration" and ongoing Delta Smelt investigations by California State Claremont, Hayward, CC Mosquito and Vector Control, and the US Fish and Wildlife Service.

Requests for next phase funding-NA

Previous CALFED and CPVIA Funding-

The Natural Heritage Institute (NHI) has been awarded as the applicant or co-applicant of three previous CALFED grants. NHI received funds as co-applicant under the lead applicant, DWR, for a project titled "A Learning Laboratory for Restoring Subsided Lands in the Delta (proposal #." Due to reimbursable problems at DWR and contract delays between DWR and CALFED, the contract was only signed in December 1999 and we are currently preparing our first quarterly report.

NHI was awarded a CALFED grant titled "Inundation of a Section of the Yolo Bypass to Restore Sacramento Splittail and Support a Suite of other Anadromous and Native Species in Dry Years (Proposal Number 99-B-189). NHI received a complete contract to begin work on May 2, 2000 and has scheduled a project kick-off meeting for May 17,2000.

NHI was awarded a CALFED grant titled "Focused Action to Develop Ecologically-based Hydrologic Models and Water Management Strategies in the San Joaquin Basin (Proposal Number 99-B-166) on February 16,2000. NHI is eager to begin work but has been informed by the Bureau of Reclamation that they will not be able to process the contract until at least July 2000.

System Wide Ecosystem Benefits-

Protection and management of the Marsh Creek Watershed will facilitate opportunities for restoration of tidal marsh in and along Big Break. Enhancement of Marsh Creek water quality will protect aquatic species throughout the Marsh Creek watershed and the Western Delta - critical habitat for numerous native species. Restoration of the floodplains in Marsh Creek will restore connectivity between habitats in the Delta and upper watershed.

E. Qualifications-

For over a decade the Natural Heritage Institute has applied state of the art science and law to resolve complex environmental problems, particularly in the Bay-Delta arena. NHI was an original signatory to the Bay-Delta Accord that precipitated the CALFED program and has contributed significantly to the development of several CALFED programs. NHI Restoration Ecologist, John Cain **M.L.A.,** will manage the project. Mr. Cain has over 10 years of experience in the field of stream and river restoration and historical watershed analysis and received a masters specializing in the subject under the guidance of Professor G. Mathias Kondolf. He has analyzed historical geomorphic, hydrologic, and watershed changes and their implications for restoration on the San Joaquin River below Friant Dam, Cache Creek, and Carman Creek in the upper Feather River Basin. As staff scientist he represented the Mono Lake Committee on the Restoration Technical Committee overseeing restoration of Rush and Lee Vining Creeks in Mono County, California. He also served as an aquatic restoration planner for the Nature Conservancy where he developed an aquatic species conservation plan for the San Joaquin Valley. NHI president, Greg Thomas J.D., will develop a legal strategy for remediation of the Marsh Creek mine site. Mr. Thomas has over 25 years of experience designing legal remedies for complex scientific and environmental problems. NHI scientist, Jim Robins, **M.S.,** will coordinate data collection, analysis, and mapping efforts. Mr. Robins has a graduate degree in rangeland ecology and 6 years of experience in watershed research and planning. Mr. Robins' research and experimental design experiences have been focused on the effects of hydrologic and geomorphologic alterations on species composition in riparian systems. His also has extensive experience integrating GSP and GIS for mapping biotic communities. Additionally, Mr. Robins has been involved in developing and implementing environmental education programs throughout the Bay Area. NHI Board member Luna Leopold, Ph.D., the primary author of the Watershed Science Program and world renowned for his expertise in hydrology and fluvial systems, will regularly advise NHI staff in project implementation. NHI board member Elizabeth Deakin, Ph.D. and professor of City and Regional Planning at U.C. Berkeley will play an active role advising on resolving conflicts between urban growth and biodiversity conservation.

The Delta Science Center at Big Break (DSC), a non-profit, public benefit corporation, is a collaborative project by government, industry, agriculture, educators, and environmentalist to build a science center focused on Delta restoration, research, and education. Member organizations governing the DSC include Contra Costa County, East Bay Regional Park District, Contra Costa Water District, Cal State Hayward, Contra Costa Community College District, Ironhouse Sanitary District, Emerson Dairy, PG&E, and local chapters of the Audubon Society and Sierra Club. Stephen Barbata, Executive Director of the DSC, will coordinate public outreach and education components of the project. Mr. Barbata has over twenty-five years of experience in the design, building and funding of educational institutions. In his roles as project manager/director and executive director, he successfully developed the Coyote Point Museum for Environmental Education in San Mateo – *Communities and Ecosystems*, the permanent natural sciences galleries of the Oakland Museum – *Wild California*, a major renovation of the North American Hall at the California Academy of Sciences – and most recently the Lindsay Museum in Walnut Creek where he was also responsible for the successful completion of its $8 million capital campaign. Chris Hoagland, M.S. is a biology professor at Los Medanos Community College who studied Marsh Creek during a recent sabbatical will advise and participate in the data collection effort.

Darrel Slotton, Ph.D. will conduct abaseliine biomonitoring program to augment 3 years of data macroinvertebrate and fish species data he has already collected throughout the watershed. Dr.

Slotton is a lead member of the U.C. Davis Mercury group where he has monitored Mercury contamination throughout the Sacramento Valley. He considers Marsh Creek a high priority and an excellent opportunity to build the best mercury baseline data set available.

William S. Wells, principal of William S. Wells Design will oversee graphic presentation and production to communicate complex scientific trends to students and residents, a critical element of the public out reach program. Mr. Wells has over 25 years of experience in the design of educational exhibitions and publications. Giving form to complex information that enlightens an interested public is clearly expressed in his museum masterplans and exhibit projects which include: the Humphry Forum, Minneapolis, Minnesota; Rancho Los Alamitos, Long Beach, California; National Maritime Museum, San Francisco, California; Lindsay Wildlife Museum, Walnut Creek, California; and the Hayden Planetarium, New York, New York.

Mitch Avalon, P.E., is the Deputy Public Works Director for Contra Costa County Flood Control District (CCCFCD). Mr. Avalon has an engineering degree from UC Berkeley and has work for CCCFCD for 20 years. He has held his current position for 2 years and has been active in drafting Contra Costa County's Strategic Plan for Public Works. Mr. Avalon brings to this project years of expertise in local hydrological issues.

The **City of Brentwood** is one of the fastest growing cities in California and has retained an impressive staff to manage this growth. **John Elam,** the City Manager of Brentwood since 1998 has over 30 years of experience managing municipalities and public works programs. Mr. Elam has a masters degree in public administration from Harvard University. He is spearheading the effort to create integrated public amenities within Marsh Creek and believes that this project should be one of Brentwood's highest priorities. **Karen Wahl,** Grants Coordinator for the City of Brentwood, has a degree in education and will serve as the City's public liaison and fund raiser for the project.

NHI and DSC have assembled an experienced team of engineers, hydrologists, and wetland scientists that have agreed to advise or consult on the project as needed. **Larry Brown,** Ph.D, USGS; **Laurel Collins,** SFEI; **Bruce Herbold** Ph.D., **Anne Riley, Ph.D.**, Waterways Institute; **Stuart Siegel,** Ph.D. (pending) SFEI; **Karl 'Malamud-Roam,** Ph.D. (pending). **Roger Leventhal, M.S. P.E.,** of Farwest Engineering has a masters degree from UC Berkeley in Civil Engineering, Hydraulics and Water Resources. He has acquired unique experience in ecological restoratiodenvironmental engineering projects as the project manager or lead engineer for many for -- Levine Frickes ecological services division where he was employed for 15 years. **Doug Lipton Ph.D.,** is an independent consultant. He established LFR's Ecological Services Group where he was employed for over a decade. His doctoral work at U.C. Berkeley and subsequent participation as the soil chemist at Lawrence Berkeley Laboratory have established Dr. Lipton as an authority in selenium and metals contamination in soils and sediments. He has successfully designed remediation and revegetation projects for abandoned mine tailing sites. **Philip Bachand Ph.D.,** received his degree in Environmental Engineering from UC Berkeley and will be assisting with both the design and monitoring for the floodplain at the Griffith Parcel. Mr. Bachand's dissertation was entitled, *"Effects of Managing Vegetative Species, Hydraulic Residence Time, Wetland Age and Wafer Depth on Removing Nitrate from Nitrified Wastewater in Constructed Wetland Macrocosms in the Prado Basin, Riverside County, California."* His research career has been focused on the use of constructed wetlands for mitigation of agricultural and urban runoff. **Stewart Siegel Ph.D. (pending),** is a registered wetland scientist with over a decade of tidal marsh restoration and an expert in wetland geomorphology. He will assist in restoration at the mouth of Marsh Creek.

F. Cost-

1. Budget-download excel spreadsheet from

Summary Table of Funding Request to CALFED

Task 1: Watershed Science Program	$122,397
Task 2: Mercury Mine Tailing Remediation Plan	$44,042
Task 3: Land Acquisition	$350,000
Task 4: Channel Restoration Design	$107,000
Task **4:** Project Management	$16,000
Total CALFED Request	**$640,104**

Following is a breakdown on rates and time allocation for all personnel.

Position	Rate	Estimated **Hours**
NHI Senior Scientist	$45 per hour	600
NHI Scientist	$32.5 per hour	700
NHI Senior Attorney	$75 per hour	100
DSC Executive Director	$45 per hour	63**5**
W.S. Wells Design Graphic Designer	$45 per hour	165
Dr. Darell Slotton	$65 per hour	350
Graduate Student Assistants	**$25** per hour	900

Travel expenses are for travel associated with conducting field trips and participating in public outreach and agency coordination efforts. Supplies are for graphic and report production and simple field equipment purchase (less than $1000) and rental.

This proposal allocates $105,000 for service contracts. With the consensus of all project partners and consistent,with state and federal law, NHI will contract with the following consultants to perform portions of task 2 and 4: Roger Leventhal of Farwest Engineering; Doug Lipton Ph.D., an independent consultant; Stuart Siegel, an independent consultant; Philip Bachand, Ph.D. an independent consultant; Anne Riley Ph.D with the Waterways Institute; and Laurel Collins of the San Francisco Estuary Institute.

Overhead costs for the project are less than 20% of total and include indirect costs associated with general office requirements such as rent, phones, furniture, travel and expense administration, auditing and general office staff and are calculated according to Federal OMB rules governing non-profit professional services. Overhead rates for Dr. Slotton are calculated as 10% assuming that work is funded by the state of California or that NHI *can* negotiate a 10% overhead rate with the University of California as it has done on other contracts.

2. Cost sharing-

Proposed Cost Share

- Watershed Science Program
  - Coastal Conservancy Grant to NHI and DSC $32,000
  - San Francisco Bay Fund to DSC $16,000
  - East Bay Regional Park District (in kind) $50,000

- Land Acquisition or Land Grant
  - Ironhouse Sanitary District (25 acres). $75,000
  - East Bay Regional Park District (15 acres) $30,000

- Channel Restoration Design and Implementation
  - Coastal Conservancy Grant $91,000
  - CC Flood Control District (Griffith parcel) $300,000
  - City of Brentwood (Coastal Conservancy) $63,000
  - San Francisco Bay Fund grant to DSC $10,000
  - Switzer Foundation $25,000

Total Cost Share $742,000

Watershed Stewardship in Marsh Creek:
Natural Heritage Institute

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%-staff and 10% contracts)	Equipment	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1-Watershed Science Program**											
	a. Public outreach and Agency Coordination	60	$2,400		$124			$631			$2,000	$3,155
	b. Preliminary description and mapping of resource	96	$3,840		$64			$976			$22,000	$4,880
	c. Coordinate a community based watershed monitoring program	80	$3,200		$96			$824				$4,120
	d. Detailed field survey and analysis	220	$8,800		$320			$2,280				$11,400
	e. Presentation of findings public report	30	$1,200		$64	$1,500		$691			$4,000	$3,455
	2- Remediation of Mercury Tailings											
	a. Collect baseline data and develop a long-term monitoring program											
	b. Develop conceptual engineering plan for remediation	16	$640					$160				$800
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	90	$3,600		$128			$932				$4,660
	3- Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration				$150			$38				$188
	a. Professional surveys-haz mat, wetland delineation, species of concern						$22,550	$2,255			$15,000	$24,805
	b. Develop restoration plan for Griffith Parcel	16	*$640*					$160			$60,000	$800
	c. Obtain permits											
	d. Collect baseline date and develop e . long-term monitoring pmgram	16	$640					$160				$800
	e.Project implementation										$65,000	
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management	160	$6,400					$1,600				$8,000
	ub-total year 1	**784**	$31,360		$946	$1,500	$22,550	$10,707			$188,000	**$67,063**

atershed Stewardship in Marsh Creek:
atural Heritage Institute

Year	sk	Direct Labor Hours	Subject to Overhead: Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (show % here)	Exempt from Overhead: Equipment	Graduate Student Fee Remission	Cost-share	Total Requested
2	**Watershed Science Program**											
	a. Public outreach and Agency Coordination	80	$3,200		$124			$831			$2,500	$4,155
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program	40	$1,600		$64			$416				$2,080
	d. Detailed field survey and analysis	180	$7,200		$640			$1,960			$7,500	$9,800
	e. Presentation of data and public report	96	$3,840		$64	$1,500		$1,351				$6,755
	Remediation of Mercury Tailings											
	a. Collect baseline data and develop a long-term monitoring program				$124			$31				$155
	b. Develop conceptual engineering plan for remediation				$32			$8				$40
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	24	$960		$124			$271				$1,356
	Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs				$200			$50				$250
	Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, wetland delineation, species of											
	b. Floodplain restoration plan and design at confluence and mouth						$72,000	$7,200				$79,200
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program	24	$960					$240				$1,200
	e. Project implementation for mouth of Marsh Creek floodplain										$105,000	
	roject Management	160	$6,400					$1,600				$8,000
	ub-total year 2	604	**$24,160**		**$1,372**	**$1,500**	**$72,000**	**$13,958**			**$115,000**	**$112,990**
	otal Project Cost	**604**	**$55,520**		**$2,318**	**$3,000**	**$94,550**	**$24,665**			**$303,000**	**$180,053**

Watershed Stewardship in Marsh Creek:
Delta Science Center

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%-staff and 10% contracts)	Equipment	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1-Watershed Science Program**							$0				$0
	a. Public outreach and Agency Coordination	160	$7,040		$320	$150		$1,760			$7,500	$9,430
	b. Preliminary description and mapping of resource	32	$1,408		$16	$250		$352			$1,500	$2,058
	c. Coordinate a community based watershed monitoring program	120	$5,280		$160	$1,500		$1,320			$1,500	$8,380
	d. Detailed field survey and analysis							$0				$0
	e. Presentation of findings public report	85	$3,740		$128	$650		$935				$5,538
	2- Remediation of Mercury Tailings		$0					$0				$0
	a. Collect baseline data and develop a long-term monitoring program		$0					$0				$0
	b. Develop conceptual engineering plan for remediation		$0					$0				$0
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	16	$704		$32			$176				$928
	3- Land Acquisition Program		$0					$0				$0
	a. Purchase of the Griffith Parcel		$0					$0				$0
	b. Transaction costs		$0					$0				$0
	4- Channel-Floodplain Restoration		$0					$0				$0
	a. Professional surveys-haz mat, wetland delineation, species of concern		$0					$0				$0
	b. Develop restoration plan for Griffith Parcel	8	$352					$88				$448
	c. Obtain permits		$0					$0				$0
	d. Collect baseline data and develop a long-term monitoring program		$0					$0				$0
	e. Project implementation											
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management							$0				$0
	sub-total year 1	**421**	**$18,524**	**$0**	**$656**	**$2,550**	**$0**	**$4,631**	**$0**		**$10,500**	**$26,782**

Watershed Stewardship in Marsh Creek:
Delta Science Center

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%)	Equipment	Graduate Student Fee Remission	Cost-share	Total Requested
2	**1-Watershed Science Program**		$0					$0				$0
	a. Public outreach and Agency Coordination	80	$3,520		$160	$200		$880			$5,500	$4,840
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program	40	$1,760		$80	$500		$440				$2,820
	d. Detailed field survey and analysis	16	$704					$176				$896
	e. Presentation of data and public report	80	$3,520		$48	$350		$880				$4,878
	2- Remediation of Mercury Tailings		$0					$0				$0
	a. Collect baseline data and develop a long-term monitoring program		$0					$0				$0
	b. Develop conceptual engineering plan for remediation		$0					$0				$0
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy		$0					$0				$0
	3- Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration		$0					$0				$0
	a. Professional surveys-haz mat, wetland delineation, species of concern		$0					$0				$0
	b. Develop restoration plan for Griffith Parcel		$0					$0				$0
	c. Obtain permits		$0					$0				$0
	d. Collect baseline data and develop a long-term monitoring program		$0					$0				$0
	e. Project implementation		$0					$0				$0
	Project Management		$0					$0				$0
	sub-total year 2	**216**	**$9,504**	**$0**	**$288**	**$1,050**	**$0**	**$2,376**	**$0**		**$5,500**	**$13,434**
	Total Project Cost	**637**	**$28,028**	**$0**	**$944**	**$3,600**	**$0**	**$7,007**	**$0**		**$16,000**	**$40,216**

Watershed Stewardship in Marsh Creek:

City of Brentwood

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (0)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1-Watershed Science Program**											$0
	e. Public outreach and Agency Coordination										$5,000	$0
	b. Preliminary description and mapping of resource											$0
	c. Coordinate a community based watershed monitoring program											$0
	d. Detailed field survey and analysis											$0
	e. Presentation of findings public report											$0
	2- Remediation of Mercury Tailings											$0
	a. Collect baseline data and develop a long-term monitoring program											$0
	b. Develop conceptual engineering plan for remediation											$0
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy											$0
	3- Land Acquisition Program											$0
	a. Purchase of the Griffith Parcel								$350,000			$350,000
	b. Transaction costs											$0
	4- Channel-Floodplain Restoration											$0
	a. Professional surveys-haz mat, wetland delineation, species of concern										$25,000	$0
	b. Develop restoration plan for Griffith Parcel										$20,000	$0
	c. Obtain permits											$0
	d. Collect baseline data and develop a long-term monitoring program											$0
	e. Project implementation											
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management											$0
	sub-total year 1		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$350,000**		**$50,000**	**$350,000**

'atershed Stewardshlp In Marsh Creek
ty of Brentwood

Year	Task	Direct Labor Hours	Subject to Overhead: Salary	Benefits	Travel	Supplies	Service Contracts	Overhead	Exempt from Overhead: Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
2	**Watershed Science Program**											
	a. Public outreach and Agency Coordination										$3,000	$0
	b. Preliminary description and mapping of resource											$0
	c. Coordinate a community based watershed monitoring program											$0
	d. Detailed field survey and analysis											$0
	e. Presentation of data and public report											$0
	Remediation of Mercury Tailings											$0
	e. Collect *baseline data* end develop e *long-term* monitoring program											$0
	b. *Develop* conceptual *engineering plan* forremediation											$0
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy											$0
	Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											$0
	Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, wetland delineation, species of concern											$0
	b. Develop restoration plan for Griffith Parcel										$10,000	$0
	c. Obtain permits											$0
	d. Collect baseline data and develop a long-term monitoring program											$0
	e. Project implementation											$0
	roject Management											$0
	ub-total year 2		$0	$0	$0	$0	$0	$0	$0		$13,000	$0
	otal Project Cost		$0	$0	$0	$0	$0	$0	$350,000		$63,000	$350,000

Watershed Stewardshlp In Marsh Creek

Contra Costa County Flood Control District

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (0)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1-Watershed Science Program**											$
	e. Public outreach and Agency Coordination											$
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program											
	d. Detailed field survey end analysis											
	e. Presentation of findings public report											
	2- Remediation of Mercury Tailings											
	e. Collect baseline data end develop e long-term monitoring program											
	b. Develop conceptual engineering plan for remediation											
	c. Coordinate inter-agancy landowner effort, develop strategy end obtain funds to implement remediation strategy											
	3- Land Acquisition Program											$
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, welland delineation, species of concern											
	b. Develop restoration plan for Griffith Parcel											
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program											
	e.Project implementation											
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management											$
	sub-total year 1		$0	$0	$0	$0	$0	$0	$0		$0	$

Watershed Stewardshlp In Marsh Creek:

Contra Costa County Flood Control District

Year	Task	Direct Labor Hours	Subject to Overhead: Salary	Benefits	Travel	Supplies	Service Contracts	Overhead	Exempt from Overhead: Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
2	**1-Watershed Science Program**											$0
	a. Public outreach and Agency Coordination											$0
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program											
	d. Detailed field survey and analysis											
	e. Presentation of data and public report											
	2- Remediation of Mercury Tailings											
	a. Collect baseline data and develop a long-term monitoring program											
	b. Develop conceptual engineering plan for remediation											
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy											
	3- Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration											$0
	a. Professional surveys-haz mat, wetland delineation, species of concern											$0
	b. Develop restoration plan for Griffith Parcel											
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program											
	e.Project implementation										$300,000	
	Project Management											
	sub-total year 2		$0	$0	$0	$0	$0	$0	$0		$300,000	$0
	Total Project Cost		$0	$0	$0	$0	$0	$0	$0		$300,000	$0

Watershed Stewardship in Marsh Creek:
Dr. Darell Slotton, UC Davis

		Subject to Overhead							Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (10%)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1-Watershed Science Program**				$500							$500
	a. Public outreach and Agency Coordination											$0
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program	50	$3,400					$340				$3,740
	d. Detailed field survey and analysis	100	$6,800			$500		$680				$7,980
	e. Presentation of findings public report											
	2- Remediation of Mercury Tailings				$500							
	a. Collect baseline data and develop a long-term monitoring program	100	$6,800			$2,600		$940				$10,080
	b. Develop conceptual engineering plan for remediation	70	$4,760					$476				$5,236
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	30	$2,040					$204				$2,244
	3- Land Acquisition Program											$0
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, wetland delineation, species of concern											
	b. Develop restoration plan for Griffith											
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program											
	e. Project implementation											
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management											$0
	sub-total year 1	350	$23,800	$0	$500	$3,100	$0	$2,380	$0		$0	$29,780

Watershed Stewardship in Marsh Creek:
UC Davis

			Subject to Overhead						Exempt from Overhead			
ear	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (10%)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
2	**1-Watershed Science Program**				$500							$500
	a. Public outreach and Agency Coordination											$0
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program	50	$3,400					$340				$3,740
	d. Detailed field survey and analysis	100	$6,800			$500		$680				$7,980
	e. Presentation of data and public report											
	2- Remediation of Mercury Tailings				$500							
	a. Collect baseline data and develop a long-term monitoring program	100	$6,800			$2,600		$680				$10,080
	b. Develop conceptual engineering plan for remediation	70	$4,760					$476				$5,236
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	30	$2,040					$204				$2,244
	3- Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, wetland delineation, species of concern											
	b. Develop restoration plan for Griffith Parcel											
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program											
	e. Project implementation											
	Project Management											
	sub-total *year* **2**	350	$23,800	*$0*	$1,000	$3,100	*$0*	$2,380	*$0*		$0	$29,78
	Total Project Cost	700	$47,600	$0	$1,500	$6,200	$0	$4,760	$0		$0	$59.560

Watershed Stewardship in Marsh Creek:

William S. Wells Designs

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1- Watershed Science Program**											$0
	a. Public outreach and Agency Coordination											$0
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program											
	d. Detailed field survey and analysis											
	e. Presentation of findings public report	84	$3,696		$160	$1,000		$924				$4,620
	2- Remediation of Mercury Tailings											
	a. Collect baseline data and develop a long-term monitoring program											
	b. Develop conceptual engineering plan for remediation											
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy											
	3- Land Acquisition Program											$0
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, wetland delineation, species of concern											
	b. Develop restoration plan for Griffith Parcel											
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program											
	e. Project implementation											
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management											
	sub-total year 1											

Watershed Stewardshlp In Marsh Creek:
William S. Wells Designs

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
2	**1-Watershed Science Program**											$0
	a. Public outreach and Agency Coordination											$0
	b. Preliminary description end mapping of resource											
	c. Coordinate e community besed watershed monitoring program											
	d. Detailed field survey and analysis											
	e. Presentation of data and public report	80	$3,520			$750		$880				$5,150
	2- Remediation of Mercury Tailings											
	a. Collect baseline data and develop a long-term monitoring program											
	b. Develop conceptual engineering plan for remediation											
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy											
	3- Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration											$0
	e. Professional surveys-haz met, wetland delineelion, species of concern											$0
	b. Develop restoration plan for Griffith Parcel											
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program											
	e. Project implementation											
	Project Management											$0
	sub-total year 2	**80**	**$3,520**	**$0**	**$0**	**$750**	**$0**	**$880**	**$0**		**$0**	**$5,150**
	Total Project Cost	**164**	**$7,216**	**$0**	**$160**	**$1,750**	**$0**	**$1,804**	**$0**		**$0**	**$9,770**

Watershed Stewardship in Marsh Creek:

Total Budget

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%-staff and 10% contracts)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
1	**1-Watershed Science Program**											
	a. Public outreach and Agency Coordination	220	9440		444	150		2391			14500	$12,425
	b. Preliminary description and mapping of resource	128	5248		80	250		1328			23500	$6,906
	c. Coordinate a community based watershed monitoring program	250	11880		256	1500		2484			1500	$16,120
	d. Detailed field survey and analysis	480	15600		320	500		2960				$19,380
	e. Presentation of findings public report	199	8636		352	3150		2550			4000	$14,688
	2- Remediation of Mercury Tailings				500							$500
	a. Collect baseline data and develop a long-term monitoring program	100	6800			2600		680				$10,080
	b. Develop conceptual engineering plan for remediation	86	5400					636				$6,036
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	136	6344		160			1312				$7,816
	3- Land Acquisition Program								350000			$350,000
	a. Purchase of the Griffith Parcel											
	b. Transaction costs				150			37.5				$188
	4- Channel-Floodplain Restoration											
	a. Professional surveys-haz mat, wetland delineation, species of concern						22550	2255			40000	$24,805
	b. Develop restoration plan for Griffith Parcel	24	=2					248			80000	$1,240
	c. Obtain permits											
	d. Collect baseline data and develop a long-term monitoring program	16	640					60				$800
	e.Project implementation										65000	
	f. Floodplain redesign at mouth of Marsh Creek											
	Project Management	581	6400					1600				$8,000
	sub-total year 1	**2220**	**$77,380**		**$2,262**	**$8,150**	**$22,550**	**$18,642**	**$350,000**		**$248,500**	**$478,984**

Watershed Stewardship in Marsh Creek:

Total Budget

			Subject to Overhead						Exempt from Overhead			
Year	Task	Direct Labor Hours	Salary	Benefits	Travel	Supplies	Service Contracts	Overhead (25%-staff and 10% contracts)	Equipment or Land	Graduate Student Fee Remission	Cost-share	Total Requested
2	**1-Watershed Science Program**											
	a. Public outreach and Agency Coordination	160	6720		284	200		1711			11000	$8,915
	b. Preliminary description and mapping of resource											
	c. Coordinate a community based watershed monitoring program	130	6760		144	500		1196				$8,600
	d. Detailed field survey and analysis	296	14704		640	500		2816			7500	$18,660
	e. Presentation of data and public report	256	10880		112	2600		3111				$16,703
	2- Remediation of Mercury Tailings				500							$500
	a. Collect baseline data and develop a long-term monitoring program	100	6800		124	2600		711				$10,235
	b. Develop conceptual engineering plan for remediation	70	4760		32			484				$5,276
	c. Coordinate inter-agency landowner effort, develop strategy and obtain funds to implement remediation strategy	54	3000		124			475				$3,599
	3- Land Acquisition Program											
	a. Purchase of the Griffith Parcel											
	b. Transaction costs											
	4- Channel-Floodplain Restoration				200			50				$250
	a. Professional surveys-haz mat, wetland delineation, species of concern										10000	
	b. Develop restoration plan for Griffith Parcel										10000	
	c. Obtain permits						72000	7200				$79,200
	d. Collect baseline data and develop a long-term monitoring program	24	960					240				$1,200
	e.Project implementation for both projects										405000	
	Project Management	160	6400					1600				$8,000
	sub-total year 2	**1250**	**$60,984**		**$2,160**	**$6,400**	**$72,000**	**$19,594**			**$443,500**	**$161,138**
	Total Project Cost	**3470**	**$138,364**		**$4,422**	**$14,550**	**$94,550**	**$38,236**	**$350,000**		**$892,000**	**$640,122**
									EBRPD In-kind		50,000	
									Total Cost-share		$742,000	

Local Involvement

This project is organized and supported by local interests. It will be managed by the NHI a non-profit 501C-3 organization. Numerous local groups, interests, and institutions are represented including the City of Brentwood, City of Oakely, Contra-Costa County Flood Control District, CCFCD, EBRPD, The Delta Science Center, Audubon Society, and Sierra Club. If funded, the project applicant will actively seek out other members of the community for participation and input on the project.

The proposed plan will build on and focus, numerous initiatives to study and restore the Creek as developed by local organizations. The Delta Science Center and the EBRPD regularly host creek study programs for local schools. Additionally, EBRPD manages parks and programs in both the headwaters and at the mouth of Marsh Creek and maintains a trail between Big Break and the City of Brentwood. The City of Brentwood's master plan developed innovative guidelines for re-naturalizing the Marsh Creek channel as subdivisions are constructed on city lands. The Dainty Education Center in Brentwood has developed an educational curriculum that emphasizes the ecological and social values of Marsh Creek. The City of Brentwood's Marsh Creek Advisory Committee regularly organizes creek clean-up days and sponsors an adopt-a-creek program with participation from the scouts, the 4-H program, the Rotary Club and other local groups. The Contra Costa County Flood Control District has initiated an environmentally fiiendly flood control effort to simultaneously achieve flood control and ecosystem objectives in selected reaches of Marsh Creek. The Contra Costa Water District has collected high quality data on conditions in the headwaters of Marsh Creek.

Although local residents support these programs, they lack a central, organizing focus that integrates them at the watershed level. Teachers and professors from local schools and colleges lead their students in data collection exercises but lament the fact that there is no organized system for using the data they collect. The Brentwood master plan for Marsh Creek is a great example of enlightened planning but does not extend to the portions of the Creek outside of the City limit. According to its members, the once active Marsh Creek Advisory Committee has historically had difficulty integrating creek issues into local school cumcula and has otherwise lost momentum in recent years. This project will bring all of these efforts and others together in a renewed vision centered around the Watershed Science Program, benefiting the Creek and the Delta.

The owner of the Griffith parcel is a willing seller (letter attached)

Compliance with standard Terms and Conditions:
This project has complied or will comply with all standard terms and conditions

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J. Threshold requirements

Sherman Lake
Sherman
Slough
SAN JOAQUIN RIVER
Big Break
Jersey
Bethel Island
Pittsburg
Antioch
Bridgehead
Oakley
Sand Hill
Knightsen
Brentwood
Lone Tree Creek
Valley
Deer Valley
Briones Valley
Marsh Creek
LOS MEGANOS
Kellogg
Marsh Creek Springs
Round Valley
MORGAN TERRITORY REGIONAL PRESERVE
HILLS
Byron Hot Springs
CANAL

Natural Heritage Institute

2140 SHATTUCK AVENUE, 5TH FLOOR
BERKELEY, CA 94704
TEL: (510) 644-2900/FAX: (510) 644-4428
e-mail: nhiten-h-i.org

Non-Profit Law and Consulting in Conservation of Natural Resources and the Global Environment

Donna Gerber
Chair-Board of Supervisors
Contra Costa County
County Administration Building
65 1 Pine Street
Martinez, C A **94553**

May 12,2000

Dear Ms. Gerber,

This letter is to notify the Contra Costa County Board of Supervisors that the Natural Heritage Institute (NHI), The Delta Science Center (DSC), the City of Brentwood, the City of Oakley, and the Contra Costa County Flood Control District (CCCFDC) are submitting an application to CALFED entitled ***Watershed Stewardship in Marsh Creek: Aproject toprotectwater quality in the WesternDelta*** The objectives of the proposed project are four-fold. We will implement a Watershed Science Program in Marsh Creek to educate and involve local residents in watershed stewardship and planning. We will also be working with a group of inter-agency landowners to develop a mitigation strategy for dealing with legacy of mercury contamination fiom the historic upstream mines. We are proposing a Land Acquisition Program focused on the purchase of the Griffith Parcel, **5** acres at the confluence of Deer and Sand creeks with Marsh Creek, in Brentwood. The final component of our proposal is a demonstration physical restoration project on the Griffith Parcel. We will restore this parcel to an active floodplain in hopes of mitigating contamination fiom urban runoff, increasing floodwater conveyance, and increasing .habitat connectivity along the Marsh Creek corridor. Attached is a copy of the executive summary from the proposal.

Please feel free to contact either John Cain at NHI or Steve Barbata at DSC if you have any questions or concerns regarding this project. We will keep you informed should the proposal be successful.

Sincerely,

John Cain
Restoration Ecologist

Natural Heritage Institute

2140 SHATTUCK AVENUE, 5TH FLOOR
BERKELEY, CA 94704
TEL: (510) 644-2900/FAX: (510) 644-4428
e-mail: nhi@n-h-i.org

Non-Profit Law and Consulting in Conservation of Natural Resources and the Global Environment

May, 12, 2000

Margit Aramburu
Executive Director
Delta Protection Commission
14215 River Road
P.O. Box 530
Walnut Grove, CA 95690

Dear Ms. Aramburu, Hi Margit, hope you like this.

This letter is to notify the Delta Protection Commission that the Natural Heritage Institute (NHI), The Delta Science Center (DSC), the City of Brentwood, the City of Oakley, and the Contra Costa County Flood Control District (CCCFDC) are submitting an application to CALFED entitled *Watershed Stewardship in Marsh Creek: A project to protect water quality in the Western Delta*. The objectives of the proposed project are four-fold. We will implement a Watershed Science Program in Marsh Creek to educate and involve local residents in watershed stewardship and planning. We will also be working with a group of inter-agency landowners to develop a mitigation strategy for dealing with legacy of mercury contamination from the historic upstream mines. We are proposing a Land Acquisition Program focused on the purchase of the Griffith Parcel, 5 acres at the confluence of Deer and Sand creeks with Marsh Creek, in Brentwood. The final component of our proposal is a demonstration physical restoration project on the Griffith Parcel. We will restore this parcel to an active floodplain in hopes of mitigating contamination from urban runoff, increasing floodwater conveyance, and increasing habitat connectivity along the Marsh Creek corridor. Attached is a copy of the executive summary from the proposal.

Please feel free to contact either John Cain at NHI or Steve Barbata at DSC if you have any questions or concerns regarding this project. We will keep you informed should the proposal be successful.

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BERKELEY, CA 94704
TEL: (510) 644-2900/FAX: (510) 644-4428
e-mail: nhi@n-h-i.org

Non-Profit Law and Consulting in Conservation of Natural Resources and the Global Environment

Steve Ritchie, Director
CALFED Bay-Delta Program Office
1416Ninth Street, Suite 1155
Sacramento, CA 95814

Re: landowner letter for this proposal

Dear Steve,

I am writing this letter to inform you that the most recent letter of cooperation from the owner of the Griffith Parcel, Michael Griffith, was mistakenly sent directly to your office by the landowner. Your staff advised me to send a hard copy of the letter to CALFED as soon as possible. Mr. Griffith will be mailing me a hard copy tonight and I will send it to CALFED as soon as it arrives at our office. I have enclosed a letter of cooperation from Michael Griffith that he wrote on April 21,2000 for a different proposal. I apologize for any inconvenience that this may cause. Thank you very much for your understanding.

Sincerely,

John Cain
Restoration Ecologist

Michael Griffith
23 Newburg St.
San Francisco; Ca. 94131
415-550-0677
415-824-0748(fax)
rnikegrif@gacbell.net

April *19,2000*

Sara Denzler, Program Coordinator
Urban Streams Restoration Program
Department *of* Water Resources
1020 Ninth Street, Third Floor
Sacramento, CA 95814

Dear *Ms.* Denzler and Urban ***Streams* program:**

I am writing to express the support of my entire family in the Marsh Creek/Griffith habitat Project We are enthusiastic to see the restoration of wetlands and preservation of a wildlife ecosystem Having owned this land for 5 decades, we *grew* to love the flora and fauna of the *creek* system.. Being surrounded by ever more housing projects, we are eager to see this project go forward, to permanently establish *this* preserve, which would have a number of important functions: wildlife and wetland preservation, creation of a flora native to California, develop outdoor *serenity* amid this rapidly developing area; create more flood control; and education. Being linked to the EB Regional trailways, it would provide public pedestrian access and create an important resource for *the* area.

We are working to help mold this project, providing landscape expertise by my *son,* Luke Griffith and planning coordination by myself. We have three generations of Griffiths working on *this* vital project.

please support this important project.

Sincerely,

Michael Griffith

EAST BAY REGIONAL PARK DISTRICT

May 11, 2000

Mr. John Cain
Natural Heritage Institute
2140 Shattuck Avenue
Berkeley, CA 94704

Dear Mr. Cain:

The East Bay Regional Park District (EBRPD) strongly supports the Marsh Creek Watershed Proposal to CALFED authored by the Natural Heritage Institute (NHI) and The Delta Science Center (DSC). As a significant property owner in the Marsh Creek watershed, including the Creek's confluence with Big Break in the western Delta, EBRPD actively endorses and participates in all watershed-wide planning, management and protection for the multiple objectives of use, restoration, recreation and flood control. The direct relationship between water quality in this rapidly urbanizing watershed and its downstream impacts at Big Break underscores the applicability of this proposal to CALFED ERP Goals.

We have supported, *and* continue to support, the efforts of NHI and the **DSC** to encourage **and** coordinate watershed planning **and** implementation by the Cities *of* Oakley, Brentwood and Antioch, and Contra Costa Flood Control District. For this specific CALFED proposal, the EBRPD will contribute **a** minimum *of* $50,000 of in-kind **services In** planning, management and **public outreach. The** proposal's **balance** of acquisition, restoration, watershed-wide **planning and public** outreach **is** a good plan for **immediate** *and* long-term **results. I** hope **CALFED** will fund this important project,

Sincerely,

Pat O'Brien
General Manager

2950 Peralta Oaks Court P.O. Box 5381 Oakland, CA 94605-0381
Tel 510 635-0135 Fax 510 569-4319 TDD 510 633-0460 www.ebparks.com

City of Oakley
Post Office Box 6
3633 Main Street
Oakley, CA 94561

Tel.: (925) 625-9116
Fax: (925) 625-9194
www.ci.oakley.ca.us

May 11, 2000

John Cain
Natural Heritage Institute
2140 Shattuck Avenue
Berkeley, CA 94704

Dear Mr. Cain,

On behalf of the City of Oakley, I strongly support the Marsh Creek Watershed proposal to CALFED as submitted by the Natural Heritage Institute (NHI) and The Delta Science Center (DSC). I serve on the Executive Committee of the Board of Directors for the DSC and understand the urgent need to coordinate planning, management and educational outreach in our 100-square-mile watershed which connects Mt. Diablo with the Delta. The newly incorporated City of Oakley looks forward to working with the cities of Brentwood and Antioch on this strategic resource of mutual concern. Our quality of life and the associated water quality in the western Delta depend on it.

The City of Oakley looks forward to playing an active role on this project wherever possible.

Sincerely,

Pat Anderson
Mayor, City of Oakley

"The City of Oakley exists to build and enhance a quality community and to serve the public in a friendly, efficient, responsive manner."

Contra Costa County
FLOOD CONTROL
& Water Conservation District

J. Michael Walford
ex officio Chief Engineer
255Glacier Drive, Martinez, CA 94553-489
Telephone: (925) 313-2000
FAX (925) 313-2333

May 10,2000

Steve Ritchie, Duector
CALFED Bay-Delta Program Office
1416 Ninth Street, Suite 1155
Sacramento, **CA** 95814

File : Marsh Creek

Dear Mr. Ritchie:

The Contra Costa County Flood Control District is pleased to **join** the Natural Heritage Institute, the Delta Science Center, the City of Brentwood and *the* City of Oakley **as** co-applicants for the Marsh Creek Watershed Stewardship Project.

The Flood Control District improved portions of Marsh Creek in the **1960's** to provide **flood** protection, **and** as a result **is** the "landowner" of most of the creek corridor from the San Joaquin River to the Marsh Creek Reservoir. We look forward to being **an** integral part of the restoration of creek channel and floodplain connectivity in **Marsh** Creek. We have identified the Griffith parcel, located between the confluences of Deer Creek and Sand **Creek** with Marsh Creek, **as** a top priority acquisition for implementing an environmentally sensitive flood control project. The Griffith project **is** a partnership with the City of Brentwood that will provide a low flow channel, wetlands habitat, floodplain terrace, and uplands habitat.

If the Marsh Creek Watershed Stewardship Project proposal **is** successfully funded by the **CALFED** Bay-Delta Program, we are committed to providing $300,000 to implement reconstruction of the floodplain at the Griffith parcel.

Thank you for considering this **very** worthwhile proposal.

Very truly yours,

Mitch Avalon
Deputy Chief Engineer
Flood Control District

RMA:gpp
G:\GrpData\Admin\Mitch\2000\00-5\Ritchie.doc

c: D. Eckerson, Flood Control District

SACRAMENTO OFFICE
STATE CAPITOL
SACRAMENTO, CA 95814-4906
(916) 445-6043
FAX (916) 445-4527
DISTRICT OFFICE
1948 MT. DIABLO BLVD.
WALNUT CREEK, CA 94596
(925) 280-0276
FAX (925) 280-0299

California State Senate

SENATOR
RICHARD K. RAINEY
SEVENTH SENATORIAL DISTRICT

MEMBER
LOCAL GOVERNMENT
CHAIRMAN
PUBLIC SAFETY
VICE CHAIRMAN
CONSTITUTIONAL AMEN
ENVIRONMENTAL QUALI
TRANSPORTATION

April 13,2000

Ms. Nadine Hitchcock
Manager, San Francisco Bay Program
Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, CA 94612

Dear Ms. Hitchcock:

Thank you so much for your letter requesting my support of the Marsh Creek-Griffith Park project, which offers a unique opportunity to create a "habitat park" that restores wetland features lost to prior agricultural practices and flood control projects, adds trees and shrubs for cover and wildlife habitat and creates an inviting area for residents in Brentwood to appreciate a "green space' within a high density and growing residential area.

I agree that open space projects such as *this* are crucial to maintaining and enhancing *the* environmental qualities and public access to a major creek in a part of the Bay Area that adjoins *the* San Joaquin Delta.

As you are probably aware, the state is anticipating a budget surplus of over $4 billion. This coming fiscal year presents the best time to deal with any funding issues. I will be sure to support all the efforts of The Marsh Creek-Griffith *Park* Project.

I appreciate you bringing this matter to my attention. I hope that working together we can accomplish the completion of this project. Please let ,me know if I can be of further assistance to you.

Sincerely,

Richard K. Rainey
Senator, 7th District

RKR:jb

EAST BAY REGIONAL PARKS PARK DISTRICT

May 11,2000

Mr. John Cain
Natural **Heritage** Institute
2140 Shattuck Avenue
Berkeley, **CA** 94704

Dear Mr. **Cain:**

The East **Bay** Regional Park District (EBRPD) strongly **supports the'** Marsh Creek Watershed Proposal to CALFED authored by the Natural **Heritage** Institute (NHI) and The Delta Science Center (DSC). **As *a*** significant **property** owner in the Marsh **Creek watershed.** including the Creek's confluence with Big **Break** in the **western** Delta, **EBRPD** actively endorses and **participates** in ail watershed-wide planning, management and protection for the multiple **objectives** *of* use. restoration, recreation and flood control. The direct relationship between water **quality** in this rapidly urbanizing watershed and its downstream impacts at **Big** Break **underscores** the applicability *of* this ***proposal to*** CAI-FED ERP Goals.

We have supported. and continue to support, the efforts of NHI and **the** DSC to encourage and coordinate watershed planning and implementation by the Cities **of** Oakley, Brentwood and Antioch, and Contra Costa Flood Control District. For this specific **CALFED proposal,** the EBRPD will contribute a minimum of $50,000 of in-kind services in planning, management and public outreach. The proposal's balance *of* acquisition, restoration, watershed-wide planning and public outreach **is** a good pian for immediate and long-term results. I hope CALFED will fund this important project.

Sincerely,

Pat O'Brien
General Manager

2950 Peralta Oaks Court P.O. Box 5381 Oakland, CA 94605-0381
ra 510 635-0135 Fax 510 569-4319 TDD 510 633-0460 www.ebparks.org

Environmental Compliance **Checklist**

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. *Failure to answer these questions and include them with the application* ***will*** *result in the application being considered nonresponsive and not considered for funding.*

1. **Do any of the** actions included **in** the **proposal** require compliance ***with*** either the California Environmental Quality **Act** (CEQA), the National Environmental Policy **Act** (NEPA), **or both?**

   X
   YES **NO**

2. **If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.**

   Contra Costa County Flood Control District
   Lead Agency

3. **If** you answered no to # **1,** explain why CEQA/NEPA compliance is not required for the actions in the proposal.

4. **If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.**

   CALFED funds will not be used for construction, only cost-share funds from the Contra Costa County Flood Control District will be used. Th project will improve flood control, stream habitat, and water quality without any significant adverse impacts and thus will easily comply with CEQA/NEPA.

5. **Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?**

   X
   YES **NO**

   If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

   *see letter from the Flood Control District

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

Conditional use permit	___	
Variance	___	
Subdivision Map Act approval	___	
Grading permit	X	
General plan amendment	___	
Specific plan appmval	___	
Rezone		___
Williamson Act Contract cancellation	___	
Other _____ (please specify)		
None required	___	
STATE		
CESA Compliance	___	(CDFG)
Streambed alteration permit	X	(CDFG)
CWA § 401 certification	X	(RWQCB)
Coastal development permit	___	(Coastal Commission/BCDC)
Reclamation Board approval	___	
Notification	___	(DPC, BCDC)
Other _____ (please specify)		
None required	___	
FEDERAL		
ESA Consultation	___	(USFWS)
Rivers & Harbors Act permit	___	(ACOE)
CWA §404 permit	___	(ACQE)
Other _____ (please specify)		
None required	___	

DPC = Delta Protection Commission
CWA = Clean Water Act
CESA = California Endangered Species Act
USFWS = U.S. Fish and Wildlife Service
ACOE = U.S. Army Corps of Engineers

€SA = Endangered Species Act
CDFG = California Department of Fish and Game
RWQCB = Regional Water Quality Control Board
BCDC= Bay Conservation and Development Comm.

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. *Failure to answer these questions and include them with the application will* ***result*** *in the application being considered nonresponsive and not considered* ***for*** *funding.*

1. Do the actions in the proposal involve physical changes *to* the land (i.e. grading, planting vegetation, **or** breeching levees) or restrictions **in** land use (i.e. conservation easement **or** placement of land in a wildlife refuge)?

   X
   YES _____ **NO**

2. **If NO to** # 1, explain what type of actions **are** involved in the proposal (i.e., research only, planning only).

3. **If YES to** # 1, what **is** the proposed land use change or restriction under the proposal?

   Change a 5 acre fallow parcel in the middle of Brentwood into a floodplain/riparian habitat.

4. **If YES to** # 1, **is** the land **currently** under a Williamson **Act** contract?

   _____ **YES** X **NO**

5. **If** YES **to** # 1, answer the following:

   Current land use _____
   Current zoning _____
   Current general plan designation _____

6. If **YES** to #1, is ***the*** land classified as Prime Farmland, Farmland of **Statewide** Importance **or** Unique Farmland **on** the Department **of** Conservation Important Farmland Maps?

   _____ **YES** X **NO** _____ **DON'T KNOW**

7. **If YES to** # **1, how many a m of land** will **be** subject to physical change ***or*** Iand ***use*** **restrictions** under the proposal?

   5 acres

8. If **YES** to # **1,** is the property currently being commercially farmed or **grazed?**

   _____ **YES** X **NO**

9. **If** YES **to** #8, what are the number **of** employees/acre _____
   "the ***total*** number **of** employees _____

10. Will the applicant acquire any interest in land under the proposal (fee title **or** a conservation easement)?

X
YES

NO

11. What entity/organization will hold the interest? City of Brentwood

12. If YES to # 10, answer the following:

Total number of acres to be acquired **under** proposal	5
Number *of* acres to be acquired in fee	5
Number of acres *to* be **subject** *to* **conservation** easement	

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:

manage the property	The City of Brentwood and/or the Contra Costa County Flood Control District will be responsible for all three tasks.
provide operations **and** maintenance services	
conduct monitoring	

14. **For** land acquisitions (fee title or easements), will existing water **rights also** be **acquired?**

X Riparian right
YES

NO

15. Does the applicant propose any modifications to the water right or change in the delivery of the water?

YES

X
NO

16. If YES to # 15, describe_____

STATE OF CALIFORNIA

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95)

COMPANY NAME

The Natural Heritage Institute

The company named above (herinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), medical condition (cancer), age (over 40), marital status, denial of family care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the ***county*** *below,* ***is*** *made under penalty of perjury under the laws of the State of California.*

OFFICIAL'S NAME

Gregory A. Thomas

DATE EXECUTED

05/12/2000

EXECUTED IN THE COUNTY OF

Alameda

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

President

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Natural Heritage INstitute

STANDARD CLAUSES – SERVICE & CONSULTANT SERVICE CONTRACTS FOR $5,000 & OVER WITH NONPUBLIC ENTITIES

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

National Labor Relations Board Clause. In accordance with Public Contract Code Section 10296, Contractor declares under penalty of perjury that no more than one final, unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a federal court which orders Contractor to comply with an order of the national Labor Relations Board.

Nondiscrimination Clause. During the performance of this contract, the recipient,Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Statement of Compliance. The Contractor's signature affixed hereon and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Contractor has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

Performance Evaluation. For consulting service agreements, Contractor's performance under this contract will be evaluated after completion. A negative evaluation will be filed with the Department of General Services.

Availability of Funds. Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

Audit Clause. For contracts in excess of $10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: Berkeley, CA

Disabled Veteran Business Enterprise Participation Requirement Audit Clause. Contractor or vendor agrees that the awarding department or its delegates will have the right to review, obtain, and copy all records pertaining to performance of the contract. Contractor or vendor agrees to provide the awarding department or its delegates access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with Public Contract Code Section 10115 et seq. Contractor or vendor further agrees to maintain such records for a period of three (3) years after final payment under the contract. Title 2 CCR Section 1896.75.

Priority Hiring Considerations. For contracts in excess of $200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the contract to qualified recipients of aid under Welfare and Institutions Code Section 11200. (Public Contract Code Section 10353).

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

2. Establish a Drug-Free Awareness Program to inform employees about all of the following:

   (a) The dangers of drug abuse in the workplace,
   (b) The person's or organization's policy of maintaining a drug-free workplace,
   (c) Any available counseling, rehabilitation and employee assistance programs, and
   (d) Penalties that may be imposed upon employees for drug abuse violations.

3. Every employee who works on the proposed contract or grant:

   (a) Will receive a copy of the company's drug-free policy statement, and
   (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Antitrust Claims. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. See Government Code Section 4552.

If an awarding body or public purchasing body received, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. See Government Code Section 4553.

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

Americans With Disabilities Act. By signing this contract, Contractor assures the state that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Corporate Qualifications To Do Business In California. Contractor must be currently qualified to do business in California as defined by the Revenue & Taxation Code, Section 23101 unless exempted. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California.

x

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

Agreement No.: _____

Exhibit: _____

ADDITIONAL STANDARD CLAUSES

Recycled Materials. Contractor hereby certifies under penalty of perjury that 20 (enter value or "0") percent of the materials, goods and supplies offered or products used in the performance of this Agreement meet or exceed the minimum percentage of recycled material as defined in Sections 12161 and 12200 of the Public Contract Code.

Severability. If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

Governing Law. This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

Y2K Language. The Contractor warrants and represents that the goods or services sold, leased, or licensed to the State of California, its agencies, or its political subdivisions, pursuant to this Agreement are Year 2000 compliant" For purposes of this Agreement, a good or service is Year 2000 compliant if it will continue to fully function before, at, and after the Year 2000 without interruption and, if applicable. with full ability to accurately and unambiguously 'process, dispiay, compare, calculate, manipulate, and otherwise utilize date information. This warranty and representation supersedes all warranty disclaimers and limitations and all limitations on liability provided by or through the Contractor.

Child Support Compliance Act For any agreement in excess of $100,000, the Contractor acknowledges in accordance therewith, that:

1. The Contractor recognizes the importance of child and family support obligations and shall fully comply with ail applicable State and federal laws relating to child and family support enforcement, including, but not limited to; disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commendng with Section 5200) of Part 5 of Division 9 of the Family Code; and

2. The Contractor, to the best of its knowledge, is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

OMB Approval No. 0348-004

ASSURANCES - NON-CONSTRUCTION PROGRAMS

NOTE: Certain of these assurances may not be applicable to your project or program. if you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, i certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Wiil comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil flights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX *of* the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, *as* amended (29 **U.S.C.** §794), which prohibits discrimination on the basis of handicaps: (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act *of* 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of aicohoi abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing *of* housing: (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied,' with the requirements of lities II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which. provide for fair and equitable treatment of persons displaced or whose property is acquired as a result *of* Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and *to* purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions *to* State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related *to* protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the 'Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
	President
APPLICANT ORGANIZATION	DATE SUBMITTED
Natural Heritage Institute	May 12, 2000

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

2 DATE SUBMITTED	Applicant Identifier
May, 15, 2000	

1. TYPE OF SUBMISSION:

Application ☐ Construction ☐ Non-Construction

Preapplication ☐ Construction ☐ Non-Construction

3. DATE RECEIVED BY STATE	State Application Identifier
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

5. APPUCAM INFORMATION

Legal **Name:** Natural Heritage Institute

Organizational Unit:

Address (give city, county, ***State,*** *and zip* code):
5140 Shattuck Ave
5th Floor
Berkeley, CA 94704

Name and telephone number of person to be contacted on matters involvi this application *(give* area *code)*
John Cain (510) 644-2900 ex. 108

6. EMPLOYER **IDENTIFICATION NUMBER** *(EIN):*
9 4 – 3 0 9 9 6 0 0

7. TYPE OF APPLICANT (enter appropriate *letter* in ***box)*** ☐

A. State — H. Independent School Dist.
B. County — I. State Controlled Institution of Higher Learning
C. Municipal — **J.** Private University
D. Township — **K.** Indian Tribe
E. Interstate — L. Individual
F. Intermunicipal — M. Profit Organization
G. Special District — N. Other (Specify) non-profit org.

8. TYPE OF APPUCATION:

☒ New ☐ **Continuation** ☐ Revision

If Revision. enter appropriate letter(s) in box(es) ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other *(specify):*

9. NAME OF FEDERAL AGENCY
CALFED

10. CATALOG OF FEDERAL **DOMESTIC** ASSISTANCE NUMBER
☐☐ – ☐☐☐
TITLE:

11. DESCRIPTIVE **TITLE** OF APPLICANT'S PROJECT
Watershed Stewardship in Marsh Cree
A project to protect water'quality in the Western Delta

12. AREAS AFFECTED BY **PROJECT** *(Cities,* Counties, States, etc.):
Contra Costa County

13. PROPOSED PROJECT		**14.** CONGRESSIONAL DISTRICTS **O F**	
Start Date	Ending Data	a. Applicant	). Project
I/2001	I/2003	District 8	Districts 7 and 10

15. ESTIMATED FUNDING

a. Federal	$ 640,122 .00
b. Applicant	$ .00
c. State	$ .00
d. Local	$ .00
e. Other	$ .00
f. Program Income	$ .00
g. TOTAL	$ .00

6. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER **12372** PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. No. ☒ PROGRAM IS NOT COVERED **BY** E. 0.12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yea **It** "Yes," attach an **explanation.** ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE **ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.**

a. Type Name of Authorized Representative	b. Title	c. Telephone Number
Gregory A. Thomas	President	(510) 644-2900 ex. 101
d. Signature of Authorized Representative		e. Date Signed
		May 12, 2000

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Standard Form 424 (Rev. 7-97)
Prescribed by OMB Circular A-102

U.S. Department of the Interior

Certifications Regarding Debarment, Suspension and Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying

Persons signing this form should refer to the regulations referenced belowfor complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled. "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See belowfor language to be used: use this form for certification and sign: or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliancevith certification requirements under 43 CFR Parts 12 and 18. The certifications shal be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PARTA: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

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CHECK ☒ IF THIS CERTIFICATION *IS* FORA *PRIMARY* COVERED *TRANSACTION* AND *IS APPLICABLE.*

(1) The prospective primary participant certifies to the &st of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification ordestruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PARTB: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

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CHECK __ *IF THIS CERTIFICATION IS* FORA LOWER *TIER* COVERED TRANSACTIONAND *IS* APPLICABLE.

(1) The prospective lower tier participant certifies, by submission *of* this proposal; that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federai department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

DI-2010
March 1995
(This form consolidates DI-1953, DI-1954, DI-1955. DI-1956 and DI-1963)

PARTC: Certification Regarding Drug-Free Workplace Requirements

CHECK √ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workpiace by:

(a) Publishing a statement notifying employees that the unlawful manufacture. distribution, dispensing, possession, or use of a controled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition:

(b) Establishing an ongoing drug-free awareness program to inform employees about--
(1) The dangers of drug abuse in the workplace;
(2) The grantee's policy of maintaining a drug-free workplace;
(3) Any available drug counseling. rehabilitation, and employee assistance programs; and
(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will –
(1) Abide by the terms of the statement; and
(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workpiace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual *notice of* such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working. unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant:

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted –
(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal. State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effot to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, *zip code*)

2140 Shattuck Ave., 5th Floor
Berkeley, Alameda County
California, 94704.

Check __ if there are workplaces on file that are not identified here.

PARTD: Certification Regarding Drug-Free Workplace Requirements

CHECK __ *IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.*

Alternate II. (Grantees Who Are Individuals)

(a) The grantee certifies that, as a condition of the grant, he or she Kill not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity Kith the grant:

(b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification *number(s)* of each affected grant.

PARTE **Certification Regarding Lobbying**
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK __ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS $100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT, SUBCONTRACT: *OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.*

CHECK X IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF $150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING $100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan. the entering into of any cooperative agreement, and the extension, continuation, renewal. amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, **U.S.** Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL _____

TYPED NAME AND TITLE Greaory A. Thomas, President

DATE May 12, 2000

DI-2010

March 1995

(This form consolidates DI-1953, DI-1954. DI-1955. **DI-1956 and DI-1963)**

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. CALFED		$ 640,122	$	$	$	$
2.						
3.						
4.						
5. Totals		$ 640,122	$	$	$	$

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	Total (5)
a. Personnel	$ 138,364	$	$	$	$
b. Fringe Benefits					
c. Travel	4,422				
d. Equipment					
e. Supplies	14,550				
f. Contractual	94,550				
g. Construction					
h. Other (Land)	350,000				
i. Total Direct Charges *(sum of 6a-6h)*					
j. Indirect Charges	38,236				
k. TOTALS *(sum of 6i and 6j)*	$ 640,122	$	$	$	$
7. Program Income	$ 0	$	$	$	$

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Standard Form 424A (Rev. 7-97)
Prescribed by OMB Circular A-102

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SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. CALFED	$ 640,122	$	$	$
9.				
10.				
11.				
12. TOTAL *(sum of lines 8-11)*	$	$	$	$

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 478,984	$ 375,000	$ 25,000	$ 25,000	$ 53,984
14. Non-Federal					
15. TOTAL *(sum of lines 13and **14)***	$ 478,984	$ 375,000	$ 25,000	$ 25,000	$ 53,984

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.	$	$	$	$
17.				
18.				
19.				
20. TOTAL *(sum of lines 16-19)*	$	$	$	$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges:

22. Indirect Charges:

23. Remarks: